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Supreme Court of the United States

OCTOBER TERM, A. D. 1933.

No. 440.

BENJAMIN F. LINDHEIMER, and others, constituting the Illinois Commerce Commission of the State of Illinois, and OTTO KERNER, Attorney General of the State of Illinois, and CITY OF CHICAGO, a municipal corporation,

Appellants,

vs.

ILLINOIS BELL TELEPHONE COMPANY,

Appellee.

BRIEF FOR APPELLEE.

Correction of Appellants' Statement of Case.

The order of the Illinois Commerce Commission of August 16, 1923, here under attack, was not confined to the four classes of coin box telephone service referred to by appellant. The company was cited as to all of its rates in Chicago (O.R. I, 10-11). As a result of this investigation, the Commission fixed the entire rate schedule of plaintiff. It directed that a schedule be filed which should contain the same rates and charges then on file with it except for the four classes of coin box service (O.R. I, 45). The rates for these four classes of coin box service affect a substantial part of the service of plaintiff in Chicago (R. IV, 2786).

These coin boxes are in private residences and places of business and are not public pay stations.

On page 7 of their brief, defendants state that the operating expenses were reduced in the year 1931 by $366,000. Defendants are apparently referring to the reduction in expenses resulting from the refusal of the court to give full effect to the Western Electric Company's prices in 1929. The effect of the court's reduction in this respect was $67,167 for the last two months of 1930, $332,470 for the year 1931, and an equal amount for the year 1932 (Ex. X-400, R. VIII, 4779, 4780; Ex. A-61, R. IV, 278).

The statutory court refused to give effect to Western Electric Company prices for telephone apparatus which were in effect subsequent to November, 1930, and thus reduced the valuation of plaintiff's property for each of the years 1930, 1931 and 1932 (R. VIII, 4943). The amount of this reduction was 10.2 per cent. and defendants have applied such reduction to the entire reproduction cost estimate instead of to the telephone apparatus included in such estimate.

50 per cent. of the cost to reproduce plaintiff's property in any year consists of materials purchased from Western (R. II, 1314). 59 per cent. of plaintiff's purchases from Western during the period 1923 to 1931 consists of telephone apparatus (R. I, 335). Therefore, only 29.5 per cent. of the total cost of reproduction is affected by this action of the court.

The defendants show the effect of these reductions on the intrastate portion of the plaintiff's property to have been about $20,000,000 as of December 31st for each of the years 1930 and 1931. These figures can be calculated from the tables appearing at page 86 of the appendix to the

defendants' brief as appellants. The correct figures are set forth at page 25 of this brief, *infra,* and are approximately $5,600,000 annually before depreciating the same in accordance with the court's findings.

The District Court did not find the fair value of the property upon the basis of plaintiff's presentation subject to the four adjustments mentioned by defendants in their statement of the case. The tables at pages 24 and 25 of this brief show this.

On page 9 of appellants' statement of the case they say that the amounts of exchange service revenue apportioned to interstate service range from $260,000 to $650,000 per year. Their own exhibit, to which they refer in this connection (Exhibit X-271, R. VII, 4354A), shows that the net effect of this separation under the rates in suit ranges from $245,000 to $486,000 in each of the years 1923 to 1931. That is, this separation has decreased the net income available for return on the intrastate business by these amounts.

The defendants state on page 14 of their brief that the earnings as found by the statutory court under the rates in suit were lower than the earnings under the existing rates as recorded on the books of the company by amounts ranging from $71,000 to $1,294,000. These figures were obtained by defendants by comparing the court's findings of net income under the rates in suit as adjusted by the court with the net income actually recorded by plaintiff on its books under the existing rates without adjustment. These figures do not measure the effect of the reduction in plaintiff's revenues which would have resulted if the rates fixed by the Commission had become effective. Such reductions are correctly stated in defendants' brief at page 7, as ranging from a low of $1,270,000 in the year 1932 to a high of $1,740,000 in 1929.

Summary of Argument.

Reduction in Plaintiff's Net Earnings which would have Resulted if Rates in Suit had been in Effect.

There is no dispute between the parties as to the reduction in plaintiff's net earnings which would have resulted from the imposition of the telephone rates complained of. The amount of that reduction is found by the District Court in its Finding of Fact 28, and varies in the several years 1923 to 1931 from a minimum of $1,433,000 to a maximum of $1,740,000. There is no assignment of error to this finding by plaintiff or by the defendants.

This reduction stated as a percentage of plaintiff's net earnings under the existing rates as found by the District Court is for each of the years of the case:

1923	23.2%	1926	20.5%	1929	16.3%
1924	20.7%	1927	20.1%	1930	16.2%
1925	20.1%	1928	19.9%	1931	14.6%

Interstate and Intrastate Separation.

Plaintiff made a complete and careful separation of its property, revenues and expenses as between its interstate and intrastate business on the basis of use, in accordance with this court's opinion. That separation was accepted by the District Court and the findings are based upon it.

It is stipulated that the separation of the property is correct and the separation of expenses is not questioned.

The separation of revenues as between the interstate and intrastate business, as found by the District Court in accordance with the plaintiff's proof, is disputed by the defendants. The undisputed evidence shows that plaintiff's exchange rates cover and compensate for all use of the local property, including the use for toll calls, both interstate and intrastate, and that the charge made for toll calls covers

only the use of the toll plant as distinguished from the exchange plant. Consequently a portion of the exchange revenue on the basis of use must be allocated to the interstate business, along with the similar allocation of exchange property and expenses.

The net amount of revenue allocated to the interstate business on this account varies in the several years from a minimum of $245,000 to a maximum of $486,000, increasing gradually over the period to 1929 and falling off somewhat in 1930 and 1931 on account of the depression.

We understand the defendants to concede that if any separation of revenues is proper the amounts as stated are correct.

Valuation.

The District Court's findings of the average fair value of the property for each year of the case are contested by both plaintiff and the defendants.

There is no claim that any of the property was not used and useful in the public service.

The District Court made separate findings of the cost of the property, the amount of construction work in progress, cash working capital, and materials and supplies. None of these amounts are in dispute.

Reproduction Cost New Appraisal of Structural Elements. Plaintiff introduced in evidence an appraisal of the reproduction cost new of its property as of December 31st of each of the years 1923 to 1931. (The trial began in February, 1932, hence no similar appraisal for that year could be made.) Defendants did not present any reproduction cost estimate of the property nor any appraisal thereof. They criticize the method of plaintiff's appraisal.

The method by which plaintiff's reproduction cost new appraisals were made was the same in all essential respects as that which had been used by the company in the commission case, which was accepted by the commission and was the basis of the commission's finding of the reproduction cost new of the property as of December 31, 1922. The method used was to convert the cost of the property, as accurately recorded in the plant accounts, to the costs current for such property on the date of the appraisal. This method was shown to be as accurate as if the appraisal had been based upon a complete field inventory. It was approved by the District Court upon the first trial and the defendants' criticisms were held to be without merit. Defendants assigned error upon the former appeal to this court. In its opinion upon the former appeal this court did not discuss or pass upon the questions thus raised with respect to plaintiff's appraisal, for the reason that the defendants' assignment of error in this respect was abandoned in their brief in this court. The method is again approved by the District Court in its present opinion and the defendants have again assigned error, which they now urge upon the present appeal.

The wage rates used by plaintiff in making the appraisal in each year were the actual wage rates being paid at the time.

Substantially all of the materials (apparatus, equipment and lead covered cable manufactured by the Western Electric Company, and other materials) were purchased from the Western Electric Company, the manufacturing and supply "department" of the Bell System. These materials represent roughly one-half of the total cost and total value of the property. The prices currently charged by the Western Electric Company in each year were used in the

appraisal. These prices are shown to have been reasonable at all times and less than market prices for comparable materials. Several very substantial reductions in prices were made by the Western Electric Company during the years of the case, whereas the general level of commodity prices was practically constant until the depression began at the end of 1929.

As bearing upon the reasonableness of Western Electric Company's prices to plaintiff this court directed the District Court to inquire into and find the profits earned by the Western Electric Company upon its sales to the Bell System Companies and to plaintiff. That branch of the case is the subject of a separate section of this brief and will be referred to again later herein, where it is shown that these profits were never more than reasonable and on the average were very low.

The District Court undervalued the property for each of the years 1930, 1931 and 1932 to the extent of more than $4,750,000 by reducing the prices of Western Electric Company applied to the appraisal in those years. This action of the court was unwarranted. The court found that Western's prices in those years were lower than the market prices for comparable things and lower than Western's prices to independent telephone companies and others for the same things. It also found that Western's earnings were very low in 1930 and 1931 and that it would sustain a loss of more than $6,000,000 in 1932. Hence the court could not reduce the prices either upon the basis of a comparison with market prices or upon the basis of undue profits. There was no justification for the reduction.

For the years 1931 and 1932 the court made an additional reduction amounting to more than $14,000,000 for 1931 and more than $23,000,000 for 1932. These reduc-

tions were made by the court upon the basis of the general decline in property values due to the general business stagnation, of which the court took judicial notice. The record shows that these reductions were without justification in the circumstances of this case, in view of the fact that Western's prices had been repeatedly reduced by large amounts during the period from 1923 to 1929, while general prices maintained an even level, and shows that Western's prices used in the reproduction appraisal in each of those years were reasonable.

Going value. The District Court appraised the element of going value at 8 per cent. of the reproduction cost new of the property in each year. This finding is accepted by plaintiff but contested by the defendants. The only evidence of the amount of going value is that introduced by plaintiff, which shows an amount in each year equal to 15 per cent. of the reproduction cost new of the physical property. Defendants did not introduce any evidence to dispute this estimate, and such testimony as defendants' witnesses gave upon the subject does not contradict but tends to support the testimony of plaintiff's witness. The evidence would sustain a much larger amount than was found by the District Court.

Existing depreciation in the property. With respect to the actual existing depreciation in the property to be deducted from the reproduction cost new, the District Court found that 16 per cent. of the reproduction cost new should be deducted for the years 1923 to 1928, and 15 per cent. for the succeeding years. This finding is assigned as error in this court by both plaintiff and defendants.

Plaintiff's testimony shows that the property was in 91 per cent. condition, or 9 per cent. depreciated from condition new, for the years 1923 to 1928, and 92 per cent. con-

dition for the succeeding years. Plaintiff's estimate was based upon careful and accurate inspections of the property. The defendants made no inspection and gave no estimate.

Plaintiff's witnesses took into account all existing depreciation, both physical and functional. This evidence is wholly uncontradicted. There is nothing in the record to sustain the District Court's finding or to support any amount in excess of that shown by plaintiff. As a result of this error on the part of the court below, plaintiff's property was undervalued in each year by amounts ranging from $9,000,000 to $13,000,000.

The position of the defendants upon the trial and upon this appeal is that the depreciation reserve, being first raised to the level of the reproduction cost new of the property in each year, should be deducted in order to arrive at a "fair rate base value." Their contention does not go to the fair value of the property, but is predicated upon alleged principles of equity. They propose to deduct the reserve for depreciation in lieu of the actual depreciation existing in the property. They characterize the District Court's finding as "a compromise fiat" and as being purely arbitrary.

The "equitable adjustment" proposed by the defendants is fully discussed in the argument herein, *infra*, page 51, *et seq.*

Profits and Prices of the Western Electric Company.

Western Electric Company, in which the American Company has owned more than 97 per cent. of the common stock since its organization in 1915, is engaged chiefly in the manufacture of telephone apparatus and lead covered cable and in the purchase of supplies manufactured by others and in their sale to the Bell Associate Companies.

Western is, in effect, the manufacturing department of the Bell System and the companies comprising that system have bought substantially all of their telephone apparatus, cable and supplies from Western.

90 per cent. of Western's manufactures and 82 per cent. of its total sales, including supplies, were sold during the period 1916 to 1931 to Western's Bell customers.

The statutory court found that Western's prices to plaintiff and its other Bell customers have been lower during the entire period 1916 to 1932 than prices charged by other manufacturers for comparable materials, and lower than prices charged by Western to independent telephone companies and others for the same materials. Commencing in 1921, Western made substantial reductions in prices charged to its Bell customers for telephone apparatus and the court found that as a result of these reductions the level of Western's prices for telephone apparatus at the end of 1929 was only 58.3 per cent. of what it had been on December 31, 1920. These reductions were made in pursuance of Western's policy, which was to make reductions whenever reasonable profits in its Bell business could be made at lower prices. During this period general price levels remained substantially unchanged.

It also found that Western's profits on sales for the period 1916 to 1932 were 4.5 per cent. and for the period 1923 to 1932, 4.7 per cent.; that its earnings on average investment were 5.9 per cent. and 6.1 per cent. for the same periods, and on average investment less the amount of the depreciation reserve were 7.6 per cent. and 8 per cent. for such respective periods; that Western had made no unreasonable or unfair profit in any of its dealings with the plaintiff; and that all of its telephone apparatus, lead covered cable and supplies were sold to plaintiff at reasonable

prices; except for the price increase made in 1930, which the court eliminated from its calculations.

Western's profits are related to its "average investment." The court found that such average investment included its plant and manufacturing facilities, merchandise, receivables and cash less current accounts payable, all at cost to Western, except merchandise, which is cost or market, whichever is lower; that there was not included in Western's average investment any amount for patents, good will, development expense or going concern value; that a large part of Western's manufacturing plant and facilities have been constructed by it for less than they could have been purchased by others and these savings reflected in its average investment; that Western's factories are advantageously located, and well designed and equipped for efficient and economical operation; that the operating costs of Western are low and its products of a high standard.

The court also found that Western's earnings on its average investment in its Bell business, and on its investment less the amount of its depreciation reserve, have been substantially one-third lower than those of other large manufacturing companies whose risks and hazards make them fairly comparable with Western; that its rate of profit on sales in its Bell business, as distinguished from earnings on investment, has been less than one-half the rate of profit made on sales by other large comparable manufacturers.

The statutory court further found that Western develops apparatus and equipment for the present and future needs of all the Bell Associate Companies which are engaged in rendering a uniform and nation-wide telephone service through plants engineered and constructed along similar lines. Because of these facts, Western's total earn-

ings on its investment and its profit on sales in its total Bell business are a fair basis for determining the reasonableness of Western's earnings in its dealings with the plaintiff. It further found that the sales of Western to plaintiff for its entire business and for use in its Chicago area had been a reasonably fair and representative cross-section of the total sales of Western to its Bell customers.

It found that Western has no sales expense and no credit risk involved in its Bell business; that by receiving advance estimates from the Bell Associate Companies of their requirements it is able to plan its manufacturing more efficiently and economically; but that these factors, which result in reducing Western's costs, are not advantages retained by Western, since the reductions in costs are passed on by it in prices charged to its Bell customers.

All the foregoing findings of the District Court are sustained by clear and convincing testimony and were made after a most thorough and searching investigation of the entire business affairs of Western and its subsidiaries. It is clearly shown that the entire Western Electric relationship has been of substantial advantage to the plaintiff and the other Bell Associate Companies and that no unreasonable profit has been made by Western in any of its dealings with the plaintiff.

It is claimed by the defendants that Western has unduly burdened its Bell business by failing to allocate to six companies with which it had dealings, some of them being subsidiaries and others independent, their proper proportion of Western's development and research expenses, and by failing to credit to Western's Bell business the proper portion of the royalties or value received by Western from them. These criticisms are fully refuted by the evidance. Defendants likewise challenge the apportionments made by

Western in arriving at its investment in and costs incident to its Bell business. These apportionments are shown to have been properly made.

Revenues and Expenses.

A. Revenues.

There is no dispute with respect to the revenues of plaintiff except upon the one point involved in the separation of revenues as between the interstate and intrastate business, referred to in connection with the separation, *supra*, page 4.

B. Expenses.

Three items of expenses as found by the district court are in dispute, namely, in all years, the annual allowance for depreciation expense and the payment to the American Telephone and Telegraph Company for services rendered pursuant to the license contract, and in the years 1930, 1931 and 1932, the disallowance of a part of the cost of materials for current maintenance purchased from Western Electric Company.

1. The Annual Allowance for Depreciation Expense.

The evidence shows that plaintiff in the regular course of business charges depreciation expense monthly at rates separately determined for the several classes of depreciable property, upon the straight line basis of depreciation expense accounting prescribed by the commission's system of accounts. These rates have been carefully and correctly determined and the charges are shown to be correct upon the straight line method. In the accounting upon the books the charges are based upon the cost of the property, and the rates and the amounts charged are shown. Plaintiff also recomputed the charges upon the basis of the replace-

ment value of the property by applying the book depreciation rates to the replacement value. The amounts so computed represent the allowance to which plaintiff is entitled under the law.

The evidence shows that plaintiff's depreciation rates throughout the period have been lower than the average for all operating companies of the Bell System.

The district court's finding for this item is less than the amount charged on the books, by sums ranging from $200,000 to $700,000 in the several years, and is less than the amount shown by plaintiff as computed upon the replacement value of the property by amounts ranging from $1,100,000 to $2,100,000 in the several years.

Both plaintiff and defendants complain of the finding of the district court.

Plaintiff's evidence is entitled to full credit and should be accepted. Defendants' witnesses made some criticism of this evidence, but their criticisms are shown to be without substantial merit. Defendants did not present any depreciation rates or any estimate of proper charges. They contend chiefly that the amount allowed by the commission in the 1920 rate order, which fixed the existing telephone rates, and the amount similarly allowed in the 1923 order, which fixed the telephone rates in suit, are controlling as a matter of law, and that it was error for the district court to allow any greater or other amounts. Their position in this respect is shown to be without foundation in law or in fact.

2. License Contract Payments.

During the period covered by this suit the American Telephone & Telegraph Company furnished to the plaintiff and to 23 other operating telephone companies, known as the Associate or Licensee Companies, licenses to use the

patents and patent rights of the American Company and also engineering, financial and other advisory services. During a part of the period in question, from 1923 to January 1, 1928, in addition to the foregoing, the American Company furnished to the Associate Companies all the telephone transmitters, receivers and induction coils required in their business and maintained them in first-class operating condition.

These services, commonly referred to in the industry and in this case as License Contract services, were furnished under two contracts, one made in 1919 and the other in 1930, both being continuations and renewals of a License Contract agreement originally entered into in 1881.

Plaintiff and each of the other Associate Companies paid for these services a percentage of their gross revenues. The percentage was 4½ per cent. in the years 1923, 1924 and 1925; 4 per cent. for 1926 and 1927; at the end of 1927 the American Company ceased to furnish the receivers, transmitters and induction coils and the rate was reduced 2 per cent. There was a further reduction to 1½ per cent. on January 1, 1929 and that rate was continued throughout the years 1929, 1930, 1931 and 1932.

It was found by the court below upon the first trial, and was not questioned then or since, that the services which the plaintiff received under the License Contract were necessary to it and could not have been obtained on as favorable terms elsewhere. For this reason, and without inquiring into the cost to the American Company of furnishing the services, the court below sustained the License Contract upon the first trial.

Upon appeal to this court, the case was sent back for findings of the cost to the American Company of rendering the License Contract services, among other things.

Upon the second trial those costs were shown in great detail. It was also shown that the American Company continued to render to the plaintiff the same valuable License Contract services which were shown upon the first trial.

The court below found the costs to the American Company and the amounts thereof which should be allocated to the operating expenses of the intrastate business of the Illinois Company for each of the years 1923 to 1931, inclusive.

The starting point of this proof was the mass of detailed records of the American Company, which showed every dollar spent and the purpose for which it was spent. There was no attack or criticism upon any of these figures. The figures required allocations in some cases, however, to determine the License Contract costs. These were made by the persons most familiar with the subjects and most capable of making them.

All, or practically all, of the primary facts shown by plaintiff's witnesses were accepted by the court; but the amounts allowed for License Contract costs aggregated $3,357,997 less than those claimed by plaintiff. This was due principally to the fact that certain items of expense or loss actually incurred by the American Company and found by the court, such as taxes, etc., were disallowed as part of the License Contract costs.

The court below, moreover, did not allow as operating expenses either the actual payments made by plaintiff to the American Company or the amount which it found to be the fair share of the costs of the American Company allocable to plaintiff. Instead, the court allowed in each particular year the cost or payment, whichever was lower.

Plaintiff has accepted the primary facts found by the court below, but has assigned error to its exclusion of taxes, etc., from the License Contract costs of the American Company, and to its restriction of the allowance to such cost or the payment, whichever was lower.

Defendants have made more than 27 assignments of error to the primary determinations of the court. These assignments consist principally of allegations that credits claimed by defendants were not offset against the admitted expenditures of the American Company.

The claimed credits aggregate a very large sum. The proof shows that the claims are unfounded, and shows that except to a small fraction thereof they are impossible. These claims are refuted in the argument herein, but they are of such a nature that it is not feasible to make a helpful summary of the argument within a reasonable compass.

3. Maintenance Expense Adjustment for 1930, 1931 and 1932.

A part of plaintiff's purchases of materials from the Western Electric Company is for current maintenance chargeable as an expense of operation. We have already referred to the District Court's action in reducing Western's prices, and thus reducing the appraisal of the property, in the years 1930, 1931 and 1932. The same price reduction was applied by the court to the materials chargeable to maintenance expenses. This reduction, so far as this item of expenses is concerned, was applicable only to the last two months of the year 1930, and therefore amounted to only $67,000 in that year. In the succeeding two years the reduction was applicable to all purchases from Western Electric Company and amounted to $332,000 for 1931 and a like amount for 1932.

For the reasons stated in our discussion of the valuation the disallowance of these expenses in the amounts stated was error.

Fair Rate of Return.

The District Court found that the fair rate of return upon the fair value of the property, which plaintiff was

entitled to earn to avoid confiscation, was 7½ per cent. for each of the years 1923 to 1927, inclusive, 7 per cent. for the years 1928, 1929 and 1930, 6½ per cent. for 1931, and 5½ per cent. for 1932.

The court justifies the percentages found for 1931 and 1932 upon the ground of the general decline in corporate earnings in those years, of which the court took judicial notice.

Plaintiff assigns error to the court's findings of 6½ per cent. for 1931 and 5½ per cent. for 1932. Defendants assign error to the finding in all years.

The only witnesses who testified directly on the fair rate of return were two witnesses on the part of plaintiff. They testified that a fair rate of return to plaintiff was, for 1923 to 1927, inclusive, 8 per cent.; for 1928, 1929 and 1930, 7 per cent.; for 1931, 7 per cent. until the latter part of the year and thereafter 8 per cent. Their testimony convincingly sustains the District Court's findings for the years 1923 to 1930, inclusive, and equally sustains plaintiff's assignment of error with respect to the last two years. Their testimony is undisputed.

The record shows the history of the new financing done by the Bell System and by plaintiff, and the cost of new capital to them, during the period in suit, and the comparable cost to railroads, other utilities, and other non-utility enterprises. This evidence likewise fully sustains plaintiff's position with respect to the fair rate of return.

Defendants take the position that considerations of the fair rate of return (and the fair value of the property) have no application to the facts and circumstances of this case. Their position and their several contentions are stated and answered in the section of this brief devoted to this subject.

ARGUMENT.

I.

Reduction in Revenue if Rates in Suit Had Been Made Effective.

If the rates established in the Commission's order of August 16, 1923, had been put into effect, they would have resulted in reducing plaintiff's net earnings on its intrastate business by the following amounts for the following years:

1923	$1,541,668
1924	1,550,995
1925	1,582,561
1926	1,650,570
1927	1,677,077
1928	1,713,301
1929	1,740,000
1930	1,645,878
1931	1,433,744

The statutory court so found upon undisputed evidence (Finding No. 28, R. III, 2520-1). The correctness of this finding is not disputed by the defendants.

This reduction stated as a percentage of plaintiff's net earnings under the existing rates as found by the District Court (Finding 27, R. III, 2520) is for each of the years of the case:

1923	23.2%	1926	20.5%	1929	16.3%
1924	20.7%	1927	20.1%	1930	16.2%
1925	20.1%	1928	19.9%	1931	14.6%

II.

Fair Value of Plaintiff's Property.

(Appellant's brief, "Rate Base Value," pages 316-377.)

Summary of Attacked Order of Illinois Commerce Commission Dated August 16, 1923.

Decisions of Statutory Court on First Trial and of this Court on Appeal (p. 21, *infra*).

Statutory Court's Findings of Fair Value on Second Trial (p. 23, *infra*).

Points in Connection with Valuation Which Are Not Contested (p. 26, *infra*).

General Description of Plaintiff's Plant (p. 27, *infra*).

The Evidence as to Fair Value (p. 27, *infra*).

Existing Depreciation and Defendants' Claims for an Equitable Adjustment on Account of the Depreciation Book Reserve (p. 50, *infra*).

Fair Value as Found by the Court Was Conservative (p. 65, *infra*).

Extent to Which Western's Profits Could Affect Valuation of Plaintiff's Property (p. 68, *infra*).

Defendants' Criticisms Are Without Merit (p. 69, *infra*).

Summary of Attacked Order of Illinois Commerce Commission Dated August 16, 1923.

The findings of the Commission in the order here attacked, so far as they relate to the subject matter under discussion, are:

> That the original cost of plaintiff's property used and useful in rendering telephone service in Chicago as of December 31, 1922, exclusive of working

capital, materials and supplies, work in progress and going value, but including overheads, was $90,687,-816 (O.R. I, 43).

That the reproduction cost new of the property used and useful in rendering telephone service in Chicago, exclusive of working capital, materials and supplies, work in progress and going value, but including overheads, as of December 31, 1922, was $128,769,000 (O.R. I, 43).

That the property was in at least 90 per cent. condition (O.R. I, 43).

That the amount of construction work in progress eventually to be included in plaintiff's capital account did not exceed $4,250,000 (O.R. I, 43).

That the required amount of cash working capital and materials and supplies was $3,000,000 (O.R. I, 43-4).

That the going value of the Chicago property was $4,196,872 (O.R. I, 44), which was the same amount found by the predecessor Commission for plaintiff's property as of July 31, 1919 (O.R. IV, 1293).

That the depreciation reserve of the Chicago area of the plaintiff was $26,000,000 (O.R. I, 44).

The Commission did not find fair value but arrived at a "fair rate making base" for the Chicago property of the company, including physical property, overheads, working capital, going value and work in progress of $96,000,000, which was "exclusive of the $26,000,000 of money taken by the company for depreciation reserve and put in plant and equipment" (O.R. I, 44).

Decisions of Statutory Court on First Trial and of This Court on Appeal.

On the first trial of this case the statutory court found that the original cost of the property as fixed by the Commission as of December 31, 1922, with net additions to

June 30, 1923, was $101,626,014 (O.R. I, 194); that the reproduction cost new as of the latter date was at least $145,000,000 (O.R. I, 196); that the property was in 90 per cent. condition and that the reproduction cost new less depreciation was $130,500,000 (O.R. I, 197); that the amount allowed by the Commission for going value of $4,196,067 was the minimum allowance which should be made for that purpose (O.R. I, 196); that the Commission's rate base value was clearly insufficient (O.R. I, 197).

It held that the Commission's exclusion from the rate base of the $26,000,000 in the depreciation reserve was erroneous (O.R. I, 193-4).

The statutory court did not find the fair value of the plaintiff's property, but said that it *could not be less than* $125,000,000. In that connection it said:

> "We are not to be understood as * * * holding that the evidence does not warrant a higher valuation than $125,000,000. We have not undertaken to decide disputed questions where it is apparent that in the view most favorable to the defendants the return to the Company would still be inadequate" (O.R. I, 198).

It made no finding with respect to value in the succeeding years, except that having determined the issue of confiscation as of 1923 in favor of the plaintiff, it said that this finding applied "with increasing force to the succeeding years" (O.R. I, 198).

This court held that in view of the fact that a rate order which is confiscatory when made may cease to be confiscatory or that one which is valid may become confiscatory at a later period, and as the disposition of the amounts withheld by the company under the conditions of the interlocutory injunction must depend upon the final decree of the

court, there was a necessity for an appropriate finding "as to the results of the intrastate business in Chicago and the effect of the rates in question for each of the years since the date of the commission's order."

The defendants' main attack on the plaintiff's valuation was directed against the method used by the plaintiff's witness Sloan in arriving at reproduction cost of the property as of June 30, 1923. The statutory court after a thorough consideration of the method employed and the criticisms made of that method by the defendants approved the same and held that the appraisal of June 30, 1923 was, "a reasonably adequate basis for determining a minimum reproduction cost" (O.R. I, 195).

This court passed upon the questions raised by the defendants' appeal and remanded the cause to the statutory court with specific instructions to make findings on the disputed issues involved, but it said nothing about Sloan's method. In this connection we point out that the defendants having assigned error specifically challenging the use of Sloan's method made no presentation of such claimed error to this court.*

The Statutory Court's Findings of Fair Value on Second Trial.

The findings of the statutory court on the second trial of the case with respect to the value of plaintiff's intrastate property are shown in the following table:

*Defendants' assignments of error on the former appeal challenging the use of Sloan's method were Nos. 25, 34, 41 and 42 of which No. 34 is the most specific (O.R. I, 206-8). The entire discussion of appellants in the former case, with respect to reproduction cost and fair value, is found at pages 300 to 316 of their brief (Case of *Smith* v. *Illinois Bell Telephone Company*, No. 845, October Term, 1929). The defendants did not there challenge the accuracy of such method in any way.

Facts Relating to Valuation of the Intrastate Property as Determined by Statutory Court.

		Chicago Intrastate Property				
		1923	*1924*	*1925*	*1926*	*1927*
1.	Book Cost—Dec. 31	$ 95,582,266	$105,519,266	$119,476,874	$132,669,445	$145,779,829
2.	Sloan's Reproduction Cost New—Dec. 31	141,959,703	148,743,498	162,702,634	167,973,156	179,821,278
3.	Existing Depreciation—16% of line 2	22,713,552	23,798,960	26,032,421	26,875,705	28,771,404
4.	Reproduction Cost New Less Depreciation (2-3)	119,246,151	124,944,538	136,670,213	141,097,451	151,049,874
5.	Going Value—8% of line 2	11,356,776	11,899,480	13,016,211	13,437,852	14,385,702
6.	Construction Work in Progress	777,127	2,016,174	1,322,045	732,365	5,162,420
7.	Total—Dec. 31 (4 + 5 + 6)	131,380,054	138,860,192	151,008,469	155,267,668	170,597,996
8.	Average for year (Computed from line 7)	125,349,710	135,120,123	144,934,331	153,138,069	162,932,832
9.	Average Working Cash Capital	2,915,000	3,060,000	3,225,000	3,440,000	3,695,000
10.	Average Materials and Supplies	222,638	284,563	338,356	316,990	306,167
11.	Total (8 + 9 + 10)	128,487,348	138,464,686	148,497,687	156,895,059	166,933,999
12.	Court's Finding of Fair Value	$124,200,000	$136,500,000	$148,500,000	$151,500,000	$167,000,000

	Chicago Intrastate Property				
	1928	1929	1930	1931	1932
1. Book Cost—Dec. 31	$157,216,705	$167,865,952	$174,160,314	$177,384,652	
2. Sloan's Reproduction Cost New—Dec. 31	188,042,959	201,567,159	207,960,544	205,968,163	
2-A. Less: W. E. Co. price adjustment	.....	.....	5,674,723	5,620,356	
2-B. Adjusted Reproduction Cost New (2-2A)	188,042,959	201,567,159	202,285,821	200,347,807	
3. Existing Depreciation—16% (1928) and 15% (1929-1932) of line (2B)	30,086,873	30,235,074	30,342,873	30,052,171	
4. Reproduction Cost New less Depreciation (2B-3)	157,956,086	171,332,085	171,942,948	170,295,636	
5. Going Value—8% of line (2B)	15,043,437	16,125,373	16,182,866	16,027,825	
6. Construction Work in Progress	2,766,292	1,671,217	4,135,752	163,771	
7. Total—Dec. 31 (4 + 5 + 6)	175,765,815	189,128,675	192,261,566	186,487,232	
8. Average for year (Computed from line 7)	173,181,906	182,447,245	190,695,121	189,374,399	$186,487,232*
9. Average Working Cash Capital	3,840,000	3,975,000	4,050,000	3,800,000	3,800,000#
10. Average Material and Supplies	319,589	253,733	191,002	203,718	203,718#
11. Total Average (8 + 9 + 10)	177,341,495	186,675,978	194,936,123	193,378,117	190,490,950
12. Court's Finding of Fair Value	$173,000,000	$184,000,000	$187,120,000	$179,100,000	$166,500,000

SOURCE OF FIGURES.

1. Finding 4, R. III, 2515; Exhibit A-54, R. IV, 2757-65.
2. Finding 5, R. III, 2515; Exhibit A-43, R. IV, 2698.
2. (a) See page 37 of our brief on cross appeal.
3. Opinion, R. III, 2505; Finding 6, R. III, 2515.
5. Opinion, R. III, 2506; Finding 6, R. III, 2515.
6. Finding 5, R. III, 2515; Exhibit A-54, R. IV, 2757-65.
9 & 10. Finding 6, R. III, 2515; Exhibit A-54, R. IV, 2757-65.
12. Finding 2; R. III, 2516.

* December 31, 1931.
\# 1931.

The court found that the plaintiff's reproduction cost new estimates were substantially accurate (Opinion, R. III, 2504) but its findings of fair value above set out were substantially below such reproduction cost estimates, after deducting therefrom existing depreciation in accordance with the court's findings.

Points in Connection with Valuation Which Are Not Contested.

The following points in connection with the valuation of the plaintiff's property are not contested by the defendants:

1. That all the property of the plaintiff in its Chicago area is used and useful in rendering service to the public.

2. That the plaintiff has properly separated its Chicago area property as between its interstate and intrastate business on the basis of actual use in full recognition of the decision of this court. The defendants have stipulated that they will not raise in this court the issue of the correctness of such separation (R. III, 2594).

3. That the amounts of cash working capital, materials and supplies and construction work in progress were correctly found by the statutory court.

4. That the plaintiff's books for its Chicago area show separately the cost of gross additions, betterments and replacements; that all retirements have been properly accounted for and that such adjustments as were proper to be made thereto have been made.

General Description of Plaintiff's Plant.

The Illinois Bell Telephone Company for forty years has owned and operated a telephone property in Chicago which is known as its Chicago area. The property in this area, with minor exceptions, is located within the city limits of Chicago (R. I, 251). The physical property consists of the necessary buildings, the land upon which they are situated and a complete telephone plant and system with necessary materials and supplies, all of which is used and useful in the public service.

The Chicago property of the plaintiff is a modern Bell System plant, well planned, efficiently engineered and properly constructed. It has a capable staff of operating employees. The plant is well adapted to the needs of the community in which it is located and through years of operation has become highly efficient and serviceable to that community (R. I, 24; Opinion, R. III, 2506).

Plaintiff was furnishing telephone service on December 31, 1923, to subscribers having over 690,000 telephones. That number had increased to over 987,000 on December 31, 1929, and at the end of 1931 was approximately 940,000 (R. IV, 2775).

The Evidence as to Fair Value.

1. General Method of Valuation.

The plaintiff's testimony with respect to the fair value of its property used in the Chicago area for rendering intrastate service was as follows:

The market value of its real estate and the cost to reproduce new its buildings was proved for each of the years as of December 31st by the testimony of Mr. Ward T. Huston and Mr. Edward H. Renwick, respectively (*infra*, p. 29).

The cost to reproduce new plaintiff's other physical property, consisting of its telephone plant, including undistributed construction costs, was established by the evidence of Mr. William F. Sloan by classes of plant for each of the years as of December 31st (*infra*, p. 30), Mr. Sloan also testified as to the going value for each year (*infra*, p. 46).

The actual existing depreciation in the plant as compared with a new one was established by careful inspection and the amount of this existing depreciation shown and deducted likewise by classes of plant (*infra*, p. 50).

The average reproduction cost new of the physical property in each year, less existing depreciation, was ascertained by taking the arithmetical average of the sum of the reproduction costs at the beginning and end of the year and to this sum there was added the average amount of construction work in progress, materials and supplies, working cash capital and going value (Exhibit A-54, R. IV, 2757-65).

The book costs of the total property and of the intrastate portion thereof were shown for each year (Exhibit A-54, R. IV, 2757-65).

The property was separated for each of the years on the basis of use to determine the amount of the property employed in plaintiff's intrastate business.

Since the valuation made as of December 31, 1922 in the order of the Illinois Commerce Commission of August 16, 1923, neither the Commission nor the City of Chicago has

made any valuation of the plaintiff's property. The defendants introduced in evidence no appraisal for any year of the period involved either of the entire property or of any element of that property. They offered no evidence upon which any finding of fair value could have been predicated.

2. Real Estate and Buildings.

The value of plaintiff's real estate was established by the evidence of an experienced real estate appraiser, thoroughly familiar with the property, who for thirty-six years had purchased, sold and appraised parcels of real estate in Chicago. He personally inspected each parcel of the company's real estate and testified as to its market value in each year (R. I, 63-4; IV, 2680-2681).

The cost to reproduce new the buildings used by the plaintiff in its Chicago area was established by the testimony of a competent architect who was familiar with all the buildings and who had supervised the construction of practically all of them since 1921. He testified as to the cost to reproduce them during each year of the period (R. I, 62-3; IV, 2676-2680).

Plaintiff's testimony showed a substantial reduction in the value of its buildings and real estate on December 31, 1931, as compared with 1930. This reduction was approximately $5,000,000 (R. IV, 2679, 2680, 2681). Such reduction was reflected in the court's finding of fair value for the years 1931 and 1932, before it made the reductions on account of general declines in values hereafter referred to.

The defendants offered no evidence as to the value of plaintiff's buildings or its real estate. They do not challenge the correctness of plaintiff's testimony but content themselves with pointing out that the values so arrived at are in excess of the book cost of the property.

3. Telephone Plant.

William F. Sloan of the firm of Sloan and Cook, a consulting engineer with wide experience in the appraisal of public utility properties, whose qualifications are fully set out in the record (O.R. II, 637), testified as to the cost to reproduce new the plaintiff's property in its Chicago area.

Sloan, in arriving at the reproduction cost new of plaintiff's property as of June 30, 1923, applied to the expenditures for construction in each year prior thereto cost conversion factors which converted the expenditures in such years to the level of reproduction costs new as of June 30, 1923. It was unnecessary for Sloan to go back of 1911 in converting gross additions and retirements because in that year a very elaborate field inventory of the property of the plaintiff had been made by the engineering firms of Byllesby and Arnold (O.R. II, 638, 644).* That appraisal showed a reproduction cost new slightly less than the book cost of the property (O.R. IV, 1425). Sloan therefore used this admittedly accurate appraisal as a starting point and converted the property in place as shown by that appraisal and all subsequent additions thereto and retirements therefrom year by year to the cost level of June 30, 1923, thus arriving at a reproduction cost new of plaintiff's property, as accurately recorded in its books, as of June 30, 1923, at the price level then prevailing.

Sloan excluded from the appraisal referred to capitalized overheads, land and buildings and applied to the total plant in place in 1911 so arrived at, cost conversion factors

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* That appraisal, after exclusion of capitalized overheads, land and buildings, showed a reproduction cost new of approximately $22,000,000 (Plaintiff's Exhibit 1, O.R. IV, 1158).

in order to convert such property in existence in 1911 by separate plant accounts (R. I, 17) to the level of prices of June 30, 1923 (R. I, 48). He also applied cost conversion factors to the gross additions and gross retirements for each year subsequent to 1911 to convert the same by separate plant accounts to the price level of June 30, 1923 (R. I, 48). The gross additions so converted were added to the appraisal and the gross retirements so converted deducted therefrom in order to obtain the final result for June 30, 1923 (R. I, 48). The dollar amounts of the gross additions and retirements were obtained from the plaintiff's records (R. I, 18) which, it is admitted, accurately recorded the same.

Cost conversion factors for materials were obtained for the June 30, 1923 appraisal by using a typical cross-section of each plant account based upon the property in such account on June 30, 1923. Such typical cross-section of plant was arrived at by taking as of June 30, 1923, the actual quantities in each plant account and dividing these quantities by a common divisor such as 1000. The purpose of this was to obtain conversion factors based upon a smaller number of articles in each plant account in the proper proportions (R. I, 25).

Cost conversion factors for labor were obtained by the use of typical gangs. Such typical gangs were representative of the gang set-up which would be used under a proper reconstruction program and the formation of such gangs was based upon the average experience of the company over a period of years (R. I, 37, 38).

The application of the method may be best illustrated by taking, for example, the year 1914, and showing how gross additions for that year were converted to the June

30, 1923 level. Sloan applied to the typical cross section of the material in a given plant account the average 1914 prices actually paid by the plaintiff to Western. He also applied to the same cross section Western prices as of June 30, 1923 and determined the ratio of material costs between the two dates (R. I, 30).

He applied to the typical gang the average wage rates actually paid by plaintiff in 1914 and likewise the wage rates as of June 30, 1923, and determined the ratio of labor costs between the two dates (R. I, 36).

These material and labor ratios were then combined in the proportions actually experienced by the Company during the year 1914 for this given plant account (R. I, 38).

The composite ratio as thus determined was then applied to the gross additions for the year 1914 to convert them to the June 30, 1923 level (Plaintiff's Exhibit I, O.R. IV, 1155-1182).

The method employed in the appraisals for December 31st for each of the years 1923 to 1931 was substantially the same as that used in making the June 30, 1923 appraisal (R. I, 15). In the latter appraisals it was necessary to arrive at nine different cost levels instead of one and Sloan, therefore, used in the later appraisals varying cross-sections of plant representative of the plant in place for each of such years (R. I, 15, 16).

The use of a typical cross-section of plant and of a typical labor gang was for the sole purpose of obtaining cost ratios (R. I, 38, 48).

Sloan starts from a detailed inventory of the plaintiff's property, the correctness of which is not challenged and applies his cost conversion factors to such property and the gross additions thereto and retirements therefrom as ac-

curately recorded in the plaintiff's books. There is thus no doubt that the property to which the cost conversion factors are applied has been correctly ascertained. The cost conversion factors were based upon proper ratios, both as to labor and materials, and the resulting appraisal is an accurate reproduction cost estimate.

The method used by Sloan was approved by the statutory court on both trials of this case after a careful investigation of the criticisms made by the defendants (O.R. I, 195-6; R. III, 2504).

That the action of the trial court in this respect was correct, and that Sloan's method has resulted in an accurate reproduction cost estimate is fully shown by the following general considerations:

1. William J. Hagenah, one of the most widely known public utility and appraisal engineers in the country, made a careful examination of Sloan's June 30, 1923 appraisal and of the method used by Sloan in arriving at that appraisal. Hagenah, in several cases referred to in his testimony, had used the same method as a check against reproduction cost estimates based upon a complete field inventory and found that the two methods resulted in approximately the same answer. He correctly concluded that Sloan's appraisal was as good evidence of reproduction cost new as any appraisal that could be made and he testified directly that the method used by Sloan resulted in a substantially accurate determination of reproduction cost new (O.R. III, 941-952).

2. The only critics of Sloan's methods were the city's witnesses, Wray and Cummings, of the firm of J. G. Wray and Company. Their evidence was directed particularly to the

claim that the method used by Sloan would not convert the plant in existence in 1911 and the gross additions thereto and retirements therefrom to the June 30, 1923 price level with substantially accurate results, and that inasmuch as a portion of the property in existence in 1911 still remains in the plant, the appraisals for each subsequent year are likewise inaccurate. That these criticisms cannot be relied upon is shown by comparing the cost trends obtained by Mr. Sloan as the result of applying this method in his appraisal, with cost trends obtained for the same period of time by his critics, J. G. Wray and Company, for properties of the Indiana Bell and New York Telephone Companies. Both of these properties are Bell System plants constructed along lines similar to those of the plaintiff. The New York plant is more nearly comparable with plaintiff's Chicago area than any other telephone property in this country. Sloan's trends for representative outside plant accounts, for central office equipment and for the entire property of the plaintiff are shown in practically every instance to be as low as or lower than those obtained for these other Bell properties for the same period of time by these same city witnesses. In the New York case, J. G. Wray and Company were employed by the Public Service Commission of New York (O.R. V, 1711) and represented the public interest. If Sloan had used the cost trends developed by J. G. Wray and Company instead of his own, his appraisal would obviously have been much higher in each year than it was (see Appendix, pp. b, c and d).

Aside from their general statements as to the inaccuracy of Sloan's method, the criticisms of these witnesses were minor in character and related to details. Certainly their testimony is not entitled to any weight where, as here,

it is shown that their own costs trends developed for comparable properties for the same period of time would have resulted in a substantially higher appraisal than that of Sloan. The statutory court on the first trial of this cause refused to credit the testimony of these witnesses. In that connection it said:

> "The testimony of the plaintiff's engineers and accountants satisfies us that the computations are based upon data which are substantially correct. It has not been met, in our opinion, by the criticisms of the expert witnesses produced by the defendants. Those criticisms are weakened by the conflicting statements of the witnesses and the contradictions found in correspondence and testimony in other cases" (O.R. I, 196).

3. Sloan's estimate of reproduction cost new as of June 30, 1923, is lower than the finding of such reproduction cost new by the Illinois Commerce Commission as of December 31, 1922, plus net additions.

The statutory court in its opinion on the former hearing thus correctly* compares the findings of the Commission as to such reproduction costs new and Sloan's estimate of such cost, both as of June 30, 1923:

> "As to reproduction cost, the Commission found the reproduction cost new, exclusive of working capital, materials and supplies, work in progress and going value, but including overheads, as of December 31, 1922, was $128,769,000. There is no rational basis in the record for that finding, unless there is added $8,292,869, the amount of the net additions

* The evidence at the former hearing entirely sustained this finding of the court. See the testimony of Turner (O. R. II, 682) where the facts are collected and summarized.

> for the year 1922, which was obviously overlooked by the Commission in making its finding. There should also be added the net additions from January 1, 1923, to June 30, 1923, amounting to $9,938,198. This makes the reproduction cost new as of June 30, 1923, approximately $147,000,000. The evidence of the Company is that the reproduction cost new of the property as of June 30, 1923, was $145,248,344 * * *."
>
> *Illinois Bell Telephone Company* v. *Moynihan*, 38 F. (2d) 77, 87 (O.R. I, 195).

4. The principal defendant in this case, the Illinois Commerce Commission, in its order of August 16, 1923, determined the reproduction cost new of the plaintiff's property by adopting an appraisal in which the same method of arriving at reproduction cost new was used. The Commission thus approved Sloan's method as a basis for its own action (O.R. I, 19; O.R. II, 681-683).

In view of the general considerations above pointed out, which show conclusively the accuracy of Sloan's method, it is necessary to consider only briefly the specific criticisms which the defendants make to the Sloan appraisals.

The defendants claim that Sloan's method reflects, so far as labor costs are concerned, piecemeal rather than wholesale construction. They point out that Sloan's conversion factors are applied to book costs, which include all work done by the company in its annual additions under both "routine" and "specific estimates." "Specific estimates" are used by the plaintiff where the work involves $2,500 or more, and "routine estimates" where the amount is less than that.

This criticism is directed to only a small portion of Sloan's reproduction cost estimates, that is the labor portion of the routine estimates, which amount represents only 14 per cent. of the company's total property (R. II, 1314). The criticism, however, is without merit. Most of the work which is done by the company under its routine estimates would have to be performed in a reconstruction of the property in the same manner as that work is regularly done by the company, not because of the amount involved in the particular work but because of the nature and character of this work (R. I, 1312-1313).

The annual construction work of the plaintiff has been so large in amount that it has necessarily involved all of the problems which are met under large continuous construction undertakings. Such is the testimony of Hagenah (O.R. III, 943), and of Sloan (R. II, 1313). Each year during the period 1923 to 1931, the company has installed in its Chicago area on the average about $20,000,000 of gross additions. This is substantially the average amount of work which would have been done under an economical and proper reconstruction program (R. IV, 2662a; R. I, 43). These facts alone constitute a complete answer to the claim that Sloan's method results in giving effect to piecemeal construction.

Defendants also criticize Sloan's use of a constant cross-section of plant in arriving at the cost conversion factors for the June 30, 1923 appraisal. It is insisted that use should have been made of a varying cross-section of plant representative of the actual plant measurements in 1911 and of the gross additions for each subsequent year. It is also claimed that the typical labor gang used by Sloan was

not representative of the company's experience in any particular year.

To illustrate their contention, defendants have set out in their brief (Appendix to appellants' brief, pages 89 to 92, inclusive) certain calculations which they call Cases 1 to 4a. They have attempted to develop a cost conversion factor, for example, in Case 3, by pricing one group of quantities with the 1912 prices and an entirely different group of quantities with the 1923 prices. It is obvious that a correct cost conversion factor can only be obtained by pricing out the same list of quantities with prices current as of two different dates, and this is what Sloan did.

That the criticisms, both as to labor and material cost trends, are without merit is shown by a comparison of Sloan's cost trends with those of J. G. Wray and Company referred to above (see Appendix, pp. b, c and d).

In addition, it appeared that the effect of the use of a constant cross-section of plant instead of a varying cross-section would have a wholly negligible result upon Sloan's appraisals.*

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* In order to test the validity of this criticism, Sloan prepared cost conversion factors for each year from 1914 to 1923, using for a material cross-section the quantities actually reported in the ten largest specific estimates in each year for pole lines, aerial cable and underground cable. For a labor cross-section he used the actual gangs peculiar to each year. Applying these new cost conversion factors to the gross additions for each year, he found a difference of only three tenths of one per cent., the test method giving a higher result than the method used in the appraisal.

He made a similar test for the same three accounts using all the quantities placed under both specific and routine estimates in the years 1920 to 1923 and found a difference there of less than four-tenths of one per cent. The result in the case of this test was lower than the appraisal by the percentage indicated (See Plaintiff's Exhibit 50, O.R. IV, 1548; also O.R. 924-5, 930-3).

Defendants contend that Sloan's appraisal does not reflect increased efficiency in labor which has taken place during the period involved in this controversy. They state that his reproduction cost new estimates "preserve in their results the higher labor costs which entered into the book cost of gross additions made prior to the introduction of new and more economical construction methods, beginning with 1911 to the date of each such new estimate."

In the first place, it is necessary to bear in mind that the defendants do not claim any increased efficiency in labor in the sense of better performance of work resulting from the honest application of the employee to his labor. It is established by undisputed testimony that there has been less inefficiency in labor performance in the public utility business than in any other industry, and that the changes in the honesty of application of employees during this period has been negligible (O.R. III, 949).

Defendants' claim in this connection is limited, as it must be, to increase in labor efficiency due to improvements in the tools used for the construction of telephone plant and in the methods of such construction. That there have been such improvements is not denied.

Defendants attempted to show that if Sloan had taken into consideration the increase in labor efficiency his appraisals would have been lower. A number of their studies were filled with errors to such an extent that they were of no value (R. II, 1319-1321). In one of their exhibits, when corrections were made for obvious omissions and errors, there was a showing of an increase in labor efficiency in a particular plant account for the year 1929 over the year 1923 of about 1 per cent. (R. II, 1321). The testimony shows

that the effect of such increased efficiency as measured by defendants is substantially negligible.

Sloan's method results in a conservative estimate for labor costs. His use of a typical gang for obtaining labor cost trends gave him a substantially lower result than would have been obtained if he had used the productive hourly labor rates for his entire appraisal, which was the method advocated by the defendants' witnesses (Exhibit A-247, R. V, 3117; R. II, 1305, 1306, 1307).

Sloan's cost conversion factors for labor did not include any allowance on account of the increased difficulties due to underground obstructions and traffic conditions which would be met in a reproduction of the plaintiff's plant and which would materially increase the cost of such construction. The extent of these difficulties is graphically stated in the testimony of Messrs. Sloan and Hagenah (R. II, 1322; O.R. III, 943-5).

Complaint is also made that Sloan's method results in a reproduction of the property installed in prior years instead of the new types of equipment which perform the same functions as the earlier types. The defendants' position is that in arriving at reproduction cost new the court should value not the property actually in use which satisfactorily fulfills every requirement, but some other property. The law is clear that the property to be valued in a confiscation case is the property actually in the plant and not something else.

> *McCardle* v. *Indianapolis Water Company*, 272 U. S. 400, 417.

In discussing a substantially similar situation which arose in that case this Court said:

> "There is to be ascertained the value of the plant used to give the service and not the estimated cost of a different plant. Save under exceptional circumstances, the court is not required to enter upon a comparison of the merits of different systems. Such an inquiry would lead to collateral issues and investigations having only remote bearing on the fact to be found, viz. the value of the property devoted to the service of the public."

Averaging of Property.

The defendants complain of the method used by the plaintiff in obtaining the reproduction cost of the average property for each year. What plaintiff did was to add together the reproduction cost new at the beginning of the year and at the end of the year, and obtain an arithmetical average of the two figures. During the period 1923 to 1930, Western's prices for telephone apparatus were declining and labor prices were increasing. The result of the method used was to obtain the average property in service and the average prices of labor and materials for the year. The method used was a proper one and is not subject to just criticism.

4. Undistributed Construction Costs.

The undistributed construction costs included in the plaintiff's appraisal consisted of engineering, administrative and legal expense, insurance, taxes and interest during construction (R. I, 20-22). The plaintiff, if it were to reproduce the Chicago area plant, would inevitably incur these expenses (R. I, 50). It actually did incur similar expenses in every ordinary process of building its plant (R. I, 52). It would be impossible to attempt to build such

a property without adequate engineering preparation and design (R. I, 52). It is obvious that the interest charges on money invested in labor and materials during the progress of construction are just as truly an element of the cost of reproducing the plant as is the cost of the labor and materials themselves. Taxes must be paid on the property during the period of construction. It is necessary to have legal advice and administrative organization and to pay insurance premiums, both on property constructed and on account of liability for damages to the public and for personal injuries to employees engaged in the construction program. The amounts of undistributed construction cost which would have been incurred in a reproduction of the property were testified to by Mr. Sloan and were based upon his judgment as an engineer and upon the actual experience of the company (R. I, 20-22, 50-53). There was no evidence to the contrary.

The Commission in its 1920 order allowed 15 per cent. for undistributed construction costs and applied this percentage to land, buildings, telephone plant, general equipment and supplies, and construction work in progress (O.R. IV, 1294). In the order under attack the Commission allowed for these undistributed construction costs 12 per cent. in addition to such overheads as were reflected in the company's books. It is clear that the Company's books included 2.36 per cent. for engineering*, so that the Commission's total allowance was at least 14.36 per cent. The 12 per cent. was applied to the reproduction cost new of the total property, including right of way, land, buildings, plant and general equipment (O.R. I, 21-23; O.R. II, 87).

* It is shown, *infra*, at page 45 that the company had not capitalized all of its engineering expense.

In the present case Sloan excluded from the company's property to which he applied his conversion factors, such undistributed construction costs as were recorded in the books (R. I, 21, 56). He then estimated the amount of undistributed construction costs that would be reasonably incurred in a reproduction of the plant. These were applied to the plaintiff's plant, exclusive of land, general equipment, materials and supplies, and construction work in progress. The percentages arrived at vary for the years involved from 16.9 per cent. to 18.2 per cent.

If Sloan's figures had been applied to the same base as the Commission used, his percentages would be slightly lower.

The amounts used by Mr. Sloan were reasonable and proper. He allowed 5 per cent. for engineering and 2 per cent. for administrative and legal expenses. These figures were arrived at after a careful study of the plaintiff's expenditures for such purposes (R. I, 21). Insurance and taxes during construction were based upon the actual experience of the company, taking into consideration the length of the construction program which varied from 9 to 10 years (R. II, 1329; R. I, 21; O.R. II, 670; A-11, R. IV, 2668-9). Interest during construction was figured at the rate of 6 per cent. per annum and amounted *in total* to slightly less than 8 per cent. (R. I, 45, 52). All the undistributed construction costs were calculated on the basis of including only that portion of such costs as would be incurred by the company before the property with respect to which they were applied was actually in use in the service of the public (Exhibit A-11, R. IV, 2662A-2670; R. I, 21-2). The evidence of the company with respect to these undistributed construction costs is detailed and satisfies

every legal requirement. The proof is clear that they would have been incurred in the amounts claimed and there is no opposing testimony.

The defendants criticize these undistributed construction costs on two grounds: they claim, first, that they are theoretical and not based on the company's actual experience, and second, that the plaintiff is now attempting to capitalize overheads which it has charged as operating expenses during the period involved.

With respect to the first contention, that these overheads are theoretical, this court has expressly decided that such items are proper elements of value and that they are not matters of outlay but of estimate, and that while proof of actual expenditures originally made is helpful, it is not indispensable.

In *Ohio Utilities Company* v. *Commission*, 267 U. S. 359, at page 362, the court says:

> "Reproduction value, however, is not a matter of outlay, but of estimate, and should include a reasonable allowance for organization and other overhead charges that necessarily would be incurred in reproducing the utility. In estimating what reasonably would be required for such purposes, proof of actual expenditures originally made, while it would be helpful, is not indispensable."

There was, however, definite proof in this case that the overheads which were used conformed to the company's experience in its ordinary construction work. Defendants point out that the plaintiff's capitalized overheads for the period 1920 to 1930, inclusive, were from 5.1 per cent. to 8.9 per cent. of the book cost of gross additions of that period, and in 1931 were 9.7 per cent. (Defendants' brief,

p. 353). The undisputed testimony in this case, which is admitted by city's witness Wray to be correct, shows that only since 1920 has the plaintiff included in its capitalized overheads any interest during construction, traffic engineering, commercial engineering or general expenses, that taxes and insurance during construction were not included down to the end of 1930 (Defendants' Exhibit X-270c, R. VII, 4353), and that interest during construction is not included in the company's capitalized overheads to the extent that it would be met under a reproduction program (R. II, 1992). That this fact is true further appears from the Commission's order in this case, in which it added $5,000,000 to the book cost of plaintiff's plant as of December 31, 1922 because of the fact that such book costs did not properly reflect overheads which should have been capitalized (O.R. I, 18, 23, 43).

There can be no question that the testimony in this case shows that the amounts of undistributed construction costs used by Sloan are based upon the experience of the company.

The claim of the defendants that plaintiff has included in its undistributed construction costs items which have been charged to current operating expenses is based upon a misapprehension of the facts. This may be illustrated by considering the item of taxes. Plaintiff currently pays taxes on its operating property and charges the same to expenses. The taxes included in the undistributed construction costs are those which would be incurred under a reproduction program before the property has been used in the plaintiff's operations.

5. Going Value.

The amount of going value was separately arrived at by the statutory court. There was not included in the court's finding of reproduction costs new of the physical property any amount on account of going value. In this respect the court followed the same procedure as did the Illinois Commerce Commission in the order under attack (O.R. I, 44).

The plaintiff claimed that the various elements which should be considered in arriving at the going value of its property required an allowance of 15 per cent. of reproduction cost new for such value. The court found 8 per cent. The defendants admit that the property had a substantial going value which has not been included in the reproduction costs of the physical property but contend that such allowance should be $4,009,692 for each of the years. That amount is the intrastate portion of an allowance for going value made by the Public Utilities Commission of Illinois as of July 31, 1919, and at a time when it found the fair value of plaintiff's property, exclusive of going value, to be approximately $66,000,000 (O.R. IV, 1293).

The statutory court in its opinion, in speaking of the element of going value in plaintiff's plant, said:

> "In determining the element of going value, consideration has been given to the evidence relating to the construction and management of plaintiff's Chicago property. It is well planned, effectively engineered, and properly constructed. It has a capable staff of operating employees. It is well adapted to the needs of Chicago, and through years of operation has become fully efficient and serviceable to that community. Continuously from 1923 to the present time,

it has had established routines, attached customers, and trained employees. The plaintiff has been efficiently and economically operated, and has had a high standard of maintenance. The company's credit has been excellent and, if given reasonable rates, it has good earning power. The number of its telephone stations increased from 690,000 at the end of 1923 to over 980,000 at the end of 1930. Plaintiff has engineered and planned its property so that, as additions are required to meet the future needs of the community, they may be made efficiently and economically.

"From a consideration of the pertinent facts, we have reached the conclusion that 8 per cent. is a reasonable allowance for going value" (R. III, 2506).

The defendants do not claim that plaintiff's evidence is insufficient to justify the allowance of going value actually made by the court, or that the court in arriving at such allowance took into consideration improper factors.

Wray was the city's witness on going value at the first trial. No witness testified for the defendants at the second trial. We find ourselves somewhat at a loss to know how to characterize Wray's testimony. He found considerable fault with both the method and the result of Sloan's detailed study, it is true, but apparently little or no fault with his final figure. At all events, the following statement fairly represents Wray's contribution to the subject. He testified:

"I am not quarreling with his judgment that going value of the Chicago property on June 30, 1923, was at least 15 per cent. I have not made an estimate and I will say that 15 per cent. may be all right. I do not believe I am justified in making an estimate of going value without making a study of it. * * *

I haven't any judgment about going value of this property" (O.R. V, 1773).

It may be that comment upon this is superfluous. The matter is for the court, of course. It seems to us we might fairly claim that this testimony by Wray lends affirmative support to Sloan's appraisal of going value. He does not quarrel with 15 per cent.; he thinks that 15 per cent. may be all right. On the other hand, he disclaims having any judgment about the going value of this property. Certainly we are justified in saying that Sloan's testimony stands uncontradicted.

Possibly we should refer to Crumb as being another witness for the city on the subject of going value. He talked briefly about the subject, but really gave no evidence upon it, except that he did say that the Chicago property of plaintiff had "a very substantial going value" (O.R. V, 1625). Of course, that was obvious. Beyond this statement, Mr. Crumb's testimony consisted of an attempt to argue legal theories in reference to the matter.

Defendants' claims in connection with going value are limited to two narrow propositions: first, that the method followed by the statutory court is not the method followed in the case of *New York Telephone Company* v. *Prendergast*,* 36 F. (2d) 54, and results in a higher allowance than was made by the court in that case, and, second, that the ascertainment of going value as a percentage of reproduction cost new results throughout the period of years involved, in doubling the allowance therefor although in the meantime plaintiff's investors have purchased plaintiff's stock at par and its bonds below par.

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* This case is now pending on appeal to this court.

As to the first point:

In many cases this court and other federal tribunals have sustained and approved findings of going value of from 9.5 per cent. to 15 per cent. of the cost of reproducing the physical property.* Because of the controlling principles announced by this court in the cases referred to in the margin, further discussion of the ruling in the *Prendergast* case is unnecessary.

In the recent decision of this court in *Los Angeles Gas and Electric Corporation* v. *Railroad Commission of California,* 289 U. S. 287, where the cases are reviewed, it appeared that there was included in the valuation found by the Commission an amount of over $5,500,000 which the court regarded "as applicable to whatever intangible value the property had as a going concern." This amount was slightly in excess of 9 per cent. of the rate base fixed by the Commission, exclusive of going value.

The second contention of the defendants needs little detailed consideration. It is clear that going value ordinarily will bear a close relation to the size of the plant. The defendants do not even claim that the plaintiff's evidence in this respect was insufficient.

It is of no importance in determining the difference in value between a dead plant and a living, successfully

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* *McCardle* v. *Indianapolis Water Co.*, 272 U. S. 400 (held that evidence sustained a finding in excess of 10 per cent.), 9.5%; *Consolidated Gas Co.* v. *Prendergast*, 6 F. (2d) 243, modified and affirmed 272 U. S. 576, 10%; *New York and Richmond Gas Co.* v. *Prendergast*, 10 F. (2d) 167, 14%; *City of Fort Smith* v. *Southwestern Bell Telephone Co.*, 294 Fed. 102, affirmed 270 U. S. 627, 15%; *Bluefield Waterworks, etc., Co.* v. *Public Service Commission of West Virginia*, 262 U. S. 679, 10%; *Georgia Railway and Power Co.* v. *The Railroad Commission of Georgia*, 262 U. S. 625, 10%.

operating property whether the investment of the plaintiff's stockholders has been paid for at par, below par; or above par. The going value which inheres in the business is to be added to the structural or "bare bones" value entirely irrespective of the considerations urged by the defendants.

Existing Depreciation and Defendants' Claims for an Equitable Adjustment on Account of the Depreciation Book Reserve.

(Appellants' brief, "Contention VIII," pages 361-77.)

On this subject the District Court says in its opinion:

> "In considering the reproduction cost new as an element in arriving at value, it is necessary to deduct the actual existing depreciation in the property as compared with the new one in order to find the value of the physical elements commonly referred to as the structural value of the property.
>
> "A consideration of the evidence on this subject, including that of the witnesses who inspected the property, has led to the conclusion that the fair rate of depreciation is sixteen per cent. for the years 1923 to 1928, inclusive, and fifteen per cent. for the succeeding years" (R. III, 2505).

The court made a definite finding of the amount to be deducted on account of such depreciation, as a step in the valuation process, which is its sixth Finding of Fact, as follows:

> "6. The fair rate of depreciation to be applied to the reproduction cost new in determining the valuations for rate-making purposes, is sixteen per cent. for the years 1923 to 1928, inclusive, and fifteen per cent. for the succeeding years" (R. III, 2515-6).

Plaintiff assigned error to this finding, as did also the defendants. Plaintiff relies upon its assignments of error in this respect upon its cross-appeal. (Plaintiff's brief as appellant on cross-appeal, No. 548, pp. 23-36.)

Plaintiff's evidence shows a maximum depreciation of 9 per cent. as compared with the court's finding of 16 per cent. for the years 1923 to 1928, inclusive, and a maximum of 8 per cent. for the succeeding years as compared with the court's finding of 15 per cent. Plaintiff urges that its evidence is clear and convincing, and that being undisputed it is entitled to full credit; and that no finding of actual depreciation in excess of 9 per cent. of the reproduction cost new of the property for the years 1923 to 1928, and of 8 per cent. for the subsequent years, can be sustained upon this record.

In support of this position we respectfully refer to the discussion in our brief on cross-appeal above cited, and we incorporate that argument herein by reference.

Defendants' Position.

Defendants, in their brief as appellants, state their position upon this issue as "Contention VIII," as follows:

> "The District Court's findings on fair rate base value should have deducted from the reproduction cost new of the depreciable property of each year a percentage thereof equal to the percentage which the amount of appellee's depreciation reserve was of the undepreciated book cost of such property as of the same date." (Appellants' brief, page 361.)

In support of this thesis they advance five subpoints, A to E, inclusive, pages 363 to 377.

Defendants' argument does not pertain to the fair value of the property at all. It is thus perhaps not without significance that their entire discussion is under the head of "*fair rate base value.*" We do not suggest that this term might not be used as having reference to the fair value of the property; one might properly say that the "fair rate base value" is the fair value of the property, and thus use the terms interchangeably. But this is not what the defendants have done and is not what they mean.

They propose to deduct the depreciation reserve balance, as such, either from book cost or reproduction cost new (Appellants' brief, page 362). In the latter case, since the credits and debits to the reserve account have been based on book cost they would recompute the reserve to make it conform to the ratio which the reproduction cost new of the property bears to the book cost. For example, if the reproduction cost new is 10 per cent. above the book cost they would increase the reserve account balance by 10 per cent. and deduct that amount from reproduction cost new.[1]

Referring to this proposal and in justification of it, they say:

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[1] The accounting process is this:

When property goes into the plant the cost of it is entered in the capital accounts. While the property remains in the plant the current depreciation rate for the particular class of property is applied to the book cost and the amount so determined is charged currently, month by month, as an expense of operation. At the same time the same amount is credited to the reserve account, "Reserve For Accrued Depreciation." When the property is taken out of the plant (1) its cost is taken out of the capital accounts, and (2) its cost less salvage recovered is also taken out of the reserve account. Of course no further expense is charged at the time of retirement. See *Board of Commissioners* v. *New York Telephone Company*, 271 U. S. 23, 27.

> "The proposed principle is based upon the familiar equitable principle of not permitting the repudiation of a course of conduct which leads to the unjust enrichment of the repudiating party at the expense of the complaining party." (Appellants' brief, page 369.)

This of course has no relation to the fair value of the property.

Their reference to the case of *New York Telephone Co.* v. *Prendergast*, 36 F. (2d) 54, where the statutory court deducted the balance in the depreciation reserve from reproduction cost new, is to the same effect. In that connection they also quote from the report of Commissioner Eastman of the Interstate Commerce Commission in the telephone depreciation case a passage of the same import. They contrast these holdings with the principle which they are proposing, in the following statement:

> "The principle which Appellants urge in the instant case as the basis for the deduction of the depreciation reserve in respect to property in service has the advantage over the principle of a presumption sought to be invoked in the *New York Telephone* case and by the Interstate Commerce Commission that depreciation, in fact, has occurred to the extent of the balance in the depreciation reserve; the presumption may be contrary to fact." (Appellants' brief, page 368.)

Defendants also take a quotation from the dissenting opinion of Mr. Justice Brandeis in the *United Railways* case, in which the suggestion is made that it may be that the depreciation reserve balance "should be subtracted from the present value of the utility's property in deter-

mining the rate base, on the theory that the payments thus contributed by the public represent a part payment for the property consumed or to be consumed in service.'"[1]

Defendants characterize the finding of the District Court as being "a compromise fiat" and without support either in law or in fact (see headnote to Point D, page 371). The significance of this statement is made clear in the closing paragraph of the discussion of Point D, on page 377, where they say:

> "Appellee's presentation is fatally defective. The only other evidence in the record upon which the District Court could make a valid finding on depreciation in valuation was the depreciation reserve account on Appellee's books and the adjustments thereto which would have resulted had the depreciation charges been recorded as found by the District Court. But such facts the District Court did not use."

That is to say, upon the record there were two bases for determining the amount to be deducted in arriving at a rate base, namely (1) plaintiff's evidence which showed the actual existing depreciation in the property, and (2) the balance in the depreciation reserve account. The court took neither one nor the other; its finding was "a compro-

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[1] With reference to this suggestion, Mr. Justice Brandeis says:

> "These matters are not involved in the case at bar and as to them no opinion is expressed." *United Railways* v. *West*, 280 U. S. 234, 286.

Defendants quote this without comment. We surmise that this is due to the fact that the suggestion there made of deducting the reserve balance from the *present value* of the property is not in accord with what the defendants are advocating, though in other respects apparently they would endorse the suggestion of Mr. Justice Brandeis.

mise fiat." It is implicit in their argument that these two bases are different concepts; that they are not evidence of the same thing. If actual existing depreciation is to be deducted, the reserve balance is immaterial. If the reserve balance is to be deducted, as they contend, the depreciation in the property is immaterial.

Defendants propose to deduct the latter amount, not upon principles of valuation of property, but upon principles of equity.

It is settled that the depreciation to be deducted in arriving at the fair value of the property is the actual existing depreciation in the property, that this can ordinarily be determined only by an examination of the property itself, and that an accounting reserve balance for depreciation such as that of plaintiff cannot be deducted either from the value of the property or as a step in the process of determining the value.

McCardle v. *Indianapolis Water Co.*, 272 U. S. 400, 416;

Minnesota Rate Cases, 230 U. S. 352, 457;

Newton v. *Consolidated Gas Co.*, 258 U. S. 165, 175;

Galveston Electric Co. v. *Galveston*, 258 U. S. 388, 396;

Bd. Public Util. Comm. v. *New York Telephone Co.*, 271 U. S. 23, 32;

Pacific Gas and Electric Co. v. *San Francisco*, 265 U. S. 403, 406;

Monroe Gaslight and Fuel Co. v. *Public Utilities Commission*, 292 Fed. 139, 146-7;

Michigan Public Utilities Commission v. *Michigan State Telephone Co.*, 200 N. W. 749, 752;

City of Charleston v. *Public Service Commission*, 95 W. Va. 91;
Southern Bell Telephone & Telegraph Co. v. *Railroad Commission*, 5 F. (2d) 77, 95, 96;
City of Cincinnati v. *Public Utilities Commission*, 113 O. S. 259, 286.

The law as laid down in these cases is soundly based. Existing depreciation is not a matter of formula. There is no possibility of keeping a running record in the accounts of the depreciation taking place in the property. The only way such a thing could be even attempted would be by making periodic inspections and recording the results in regular course of business. That is quite out of the question as a practical matter if for no other reason than that the cost of doing it would be prohibitive.

Depreciation expense accounting does not purport to do that; if it did its pretensions would be obviously contrary to reality. The total expense of depreciation for any unit of property is the replacement value of the unit less recoverable salvage. That represents the company's loss due to the consumption of the property in service, for which it must be reimbursed. The annual depreciation expense charge is the mechanism for making such reimbursement in even annual increments over the service life, so that all who receive equal service from the property share equally this part of the cost of giving the service.* This ultimate loss of the property is the result of many different causes: wear and tear, rust, rot and decay, public

* It is to be understood, however, that the accounting on the books is on the basis of book cost of the property, in accordance with the defendant commission's prescribed system of accounts.

requirements, progress in the art, growth of the community, etc. These causes in the main do not make themselves felt progressively.

It results that a depreciation reserve is built up which bears no relation to actual depreciation in the property. The reserve balance and the actual depreciation at any time can be compared only after examining the property to ascertain its condition; the depreciation, physical and functional, thus found can be measured in dollars and the amount compared with the reserve.

Monies which plaintiff has thus retained in the undertaking as a result of accruing the proper depreciation reserve have been expended for property. These monies are a part of the company's revenues of past years which it has earned by rendering service. There is no doubt about the ownership of these monies; they are just like any other monies which the company has owned and invested in its property. *Board of Commissioners* v. *New York Telephone Company*, 271 U. S. 23, 31.

Ordinarily the accounting reserve will be in excess of the actual depreciation. *The depreciation is taken away from the company in the valuation process.* The amount by which the reserve account balance exceeds the depreciation remains with the company, and the company may be said to have had the use of this difference, providing, however, it has earned a fair return throughout the period during which the reserve on the books has been built up. To the extent that it has not earned a fair return, the Company's stockholders have contributed the difference.

The annual charge for depreciation is an expense charge and comes ahead of any return. Before it is possible to

know whether, in any view of the matter, any adjustment on account of the difference between the reserve account balance and the existing depreciation would be equitable or not, it is necessary to know whether the company has earned a fair return on the value of the property throughout the period during which the reserve balance has accumulated. That cannot possibly be known; there is no possible way of ascertaining that fact. Moreover, the reserve balance in existence when the question of an adjustment arises, that is at the inception of the suit, whatever the amount of it, cannot be brought into the adjustment. It was accrued on the books by charges against earnings under lawful rates for service. *Knoxville* v. *Knoxville Water Company*, 212 U. S. 1; *Board of Commissioners* v. *New York Telephone Company*, 271 U. S. 23.

In plaintiff's brief as appellant on cross-appeal we have shown:

First; that plaintiff has accrued its depreciation reserve on its books during this period by a careful and correct application of the straight line method of depreciation expense accounting, and that the District Court erroneously disallowed substantial amounts of such accrual in each year (brief, pages 50-76). See also page 61, *infra*.

Second; that the existing depreciation in the property, physical and functional, does not exceed 9 per cent. in the years 1923 to 1928 and 8 per cent. thereafter, and that the court erroneously deducted 16 per cent. and 15 per cent. respectively in the corresponding years (brief, pages 23-36).

Assuming that some adjustment is to be made in recognition of the equitable considerations which defendants invoke, the first step in the process should be to correct these errors of the District Court. First, with respect to the earnings, the company's expense charges for this item should be approved, and the amount disallowed by the District Court should be restored to the expenses and its finding of net earnings reduced accordingly. Second, with respect to the valuation, the amount deducted by the District Court in excess of the actual depreciation should be added to the value of the property found by the District Court. Both these things will be in accord with the settled law.

Before taking the next step in this adjustment, there are two fundamental errors in what the defendants propose that remain to be pointed out.

Their first fundamental error is that they propose to increase the reserve to make it correspond to the reproduction cost new of the property in each year.

The answer here seems to be clear. The subscribers pay money for service. They do not pay for property or buy property, and they are not financially interested in what property the company has. Whenever the company invests money in operating plant to serve the public, it does so at its own risk. It is entitled to the benefit of any increase in property value and must sustain the loss from any decrease. If there is any "enrichment" of plaintiff as the result of straight line depreciation expense accounting, it must be by reason of the advance collection of certain money. The money, therefore, is the item to be ascertained and dealt with in any adjustment.

Defendants' second fundamental error is that they propose to deny the company any earnings whatever upon this portion of its property.

This would be inequitable and is wholly unwarranted. This is true for the same reason as just pointed out with respect to the valuation. When the company invests this part of its money in operating property, the property is at its own risk and not at the risk of the users of the service. This is elementary: the money belongs to the company; the users accept none of the risks of the undertaking. If the company takes all the risks, it is entitled to commensurate compensation. Whatever adjustment, if any, is equitable, it cannot be such as to deny to the company recompense suitable to offset the risks which it assumes when it devotes this money to the public service in the form of operating plant. Investments free of risk do not command a rate of return equal to the fair rate of return in the telephone business. Such investments are properly compensated by a rate of return of 3 per cent. or at the outside 3½ per cent. The return in excess of this is in recognition of what has come to be summed up in the convenient phrase "risks and hazards."

The adjustment, therefore, however made, should not go further than to give credit in favor of the telephone users in an amount equal to 3½ per cent. upon the difference between the depreciation reserve and the amount deducted from the valuation for existing depreciation. The following tables assemble all the facts and, by the successive steps indicated above, proceed to the final adjustment, which is shown in Table 4, column 4, page 63, *infra*.

First Step.

The difference between the amounts allowed by the Court for annual expense of depreciation and the amounts charged on the Company's books based on the original cost of the property are shown in column 3 below:

TABLE 1.

Year	Amount Found by Court (1)	Amount Charged on Original Cost Basis per Books (2)	Court's Depreciation Allowance Less Than Charge per Books (2) — (1) (3)
1923	$4,000,000	$4,222,000	$222,000
1924	4,250,000	4,470,000	220,000
1925	4,750,000	5,048,000	298,000
1926	5,400,000	5,767,000	367,000
1927	6,000,000	6,335,000	335,000
1928	6,650,000	7,009,000	359,000
1929	7,000,000	7,436,000	436,000
1930	7,200,000	7,865,000	665,000
1931	7,400,000	8,133,000	733,000

Second Step.

The amounts which should be restored to the value of the property and the amounts of return thereon at the fair rates of return found by the court are as follows:

TABLE 8

Year	Reproduction Cost Intrastate Property Excluding Land and Right of Way: Amount at December 31 from Exhibit A-41 "Intrastate Total" (1)	Reproduction Cost Intrastate Property Excluding Land and Right of Way: Average Amount for Calendar Year (Computed from Col. 1) (2)	Deduction for Existing Depreciation As Percentage of Reproduction Cost: Court's Finding (3)	Deduction for Existing Depreciation As Percentage of Reproduction Cost: Company's Evidence (4)
1923	$139,664,758	$133,244,605	16%	9%
1924	146,223,565	142,939,162	16%	9%
1925	159,884,262	153,053,914	16%	9%
1926	165,032,055	162,458,159	16%	9%
1927	176,290,322	170,661,189	16%	9%
1928	184,618,758	180,454,540	16%	9%
1929	197,887,923	191,253,341	15%	8%
1930	198,679,303*	198,283,613	15%	8%
1931	197,032,239*	197,855,771	15%	8%

Year	Amount Which Should Be Restored to Value of Property (in Round Figures) Col. 2 Multiplied by Col. 3 Minus Col. 4 (5)	Fair Rate of Return Found by Court (Finding 32) (6)	Return at Court's Rates on Amounts Which Should Be Restored to Value (Col. 5 x Col. 6) (7)
1923	$ 9,300,000	7½%	$697,000
1924	10,000,000	7½%	750,000
1925	10,700,000	7½%	802,000
1926	11,300,000	7½%	847,000
1927	11,900,000	7½%	892,000
1928	12,600,000	7 %	882,000
1929	13,300,000	7 %	931,000
1930	13,800,000	7 %	966,000
1931	13,800,000	6½%	897,000

* These amounts for 1930 and 1931 have been reduced by $5,674,723 and $5,620,356, respectively, below those stated in Exhibit A-41 (R. 2687-2697) on account of the Court's adjustment of Western Electric Company prices in those years (pp. 36 to 44, plaintiff's brief as appellant on cross-appeal, No. 548).

Third Step.

The amounts by which the Company's depreciation reserve exceeded the currently existing depreciation in the property, and interest thereon at 3½ per cent. are shown in columns 3 and 4, respectively, below:

TABLE 3.

Year	Deduction for Existing Depreciation at Percentages Shown by Company's Evidence (in Round Figures)* (1)	Depreciation Reserve Per Books** (2)	Excess of Reserve Over Existing Depreciation (Col. 2 Minus Col. 1) (3)	Interest at 3½% on Amounts in Col. 3 (4)
1923	$11,992,000	$26,797,000	$14,805,000	$ 518,000
1924	12,865,000	29,316,000	16,451,000	576,000
1925	13,775,000	32,155,000	18,380,000	643,000
1926	14,621,000	35,572,000	20,951,000	733,000
1927	15,360,000	39,352,000	23,992,000	840,000
1928	16,241,000	42,769,000	26,528,000	928,000
1929	15,300,000	44,515,000	29,215,000	1,023,000
1930	15,863,000	45,829,000	29,966,000	1,049,000
1931	15,828,000	48,362,000	32,534,000	1,139,000

* Average amounts per year, obtained from Table 2 above by multiplying the figures in Col. 2 by the percentages in Col. 4.

** Average amounts per year, obtained from total Chicago depreciation reserve at end of each year (Exhibit A-60, R. IV, 2782-A), multiplied by "intrastate total" percentage shown in last column of Exhibit A-43 (R. IV, 2698), minus one-half of the increase during the year in order to obtain the average for the year.

The net effect of the foregoing adjustments is shown in column 4 of the following table:

TABLE 4.

Year	Court's Depreciation Allowance Less Than Charge Per Books (From Table 1) (1)	Return at Court's Rates on Amounts Which Should be Restored to Value (From Table 2) (2)	Interest at 3½% on Excess of Reserve Over Existing Depreciation (From Table 3) (3)	Net Effect of Adjustments (Col. 1 Plus Col. 2, Minus Col. 3) in Favor of Company (4)
1923	$222,000	$697,000	$518,000	$401,000
1924	220,000	750,000	576,000	394,000
1925	298,000	802,000	643,000	457,000
1926	367,000	847,000	733,000	481,000
1927	335,000	892,000	840,000	387,000
1928	359,000	882,000	928,000	313,000
1929	436,000	931,000	1,023,000	344,000
1930	665,000	966,000	1,049,000	582,000
1931	733,000	897,000	1,139,000	491,000

The amounts shown for each year in column 4 of Table 4 above should be added to the deficiencies (cols. 8 and 9, page 251, *infra*) of amounts found by the District Court to have been earned by plaintiff, below the amounts which in accordance with the Court's decision it would have been entitled to earn in the respective years. To illustrate, the Court found that the fair value of plaintiff's property in 1923 was $124,200,000; that plaintiff was entitled to a return of 7.5 per cent. on this value, or $9,315,000. The Court also found that the return actually earned by plaintiff in 1923 under the existing rates (after all adjustments made by the Court) was $6,646,000. The deficiency in return for that year was the difference between these last two amounts, or $2,669,000. Adding to this deficiency the net effect of the adjustment here being considered, the total deficiency in return for the year 1923 was $3,070,000 under existing rates. Similarly, the deficiency in return for 1923 under the rates in suit would be increased from $4,210,000 to $4,611,000.

The foregoing facts and computations, which can be readily checked and easily followed, make it entirely clear that the District Court in its findings has already made an excessive adjustment against the company, an adjustment that is excessive by the amounts shown in column 4 of table 4. It has accomplished this result, first, by deducting from the value of the property amounts for existing depreciation which have absolutely no support in the evidence; and second, by disallowing substantial amounts of plaintiff's proper depreciation expense charges, likewise contrary to all the evidence.

We have dealt with the matter thus far on the basis of the book accruals to the reserve account. This has been done for the sake of simplicity and clarity of treatment.

We now present Table 5, in which the annual accruals are put on the basis of replacement value (reproduction cost new) of the property, in accordance with *United Railways* v. *West, supra.* That is the proper basis. The calculation of deficiencies in return would be made as before, but substituting in place of the amounts taken from column 4 of Table 4 the amounts appearing in column 5 of Table 5 below. To illustrate, the deficiency in return for 1923 under existing rates now becomes $4,486,000 and under the rates in suit $6,027,000.

TABLE 5.

Year	Net Effect With Depreciation Expense on Basis of Original Cost (Table 4) (1)	Excess of Depreciation Expense on Replacement Value Basis Over Original Cost Basis (Plaintiff's Brief on Cross-appeal, p. 60) (2)	Increase in Reserve With Accruals Made on Basis of Replacement Value (Col. 2 Cumulative From 1923) (3)	Interest at 3½% on Increases in Reserve (Col. 3, Averaged for Each Year, Multiplied by 3½%) (4)	Net Effect of Adjustments in Favor of Company With Depreciation Expense on Basis of Replacement Value (Col. 1 Plus Col. 2 Minus Col. 4) (5)
1923	$401,000	$1,441,000	$1,441,000	$ 25,000	$1,817,000
1924	394,000	1,912,000	3,353,000	84,000	2,222,000
1925	457,000	1,721,000	5,074,000	147,000	2,031,000
1926	481,000	1,450,000	6,524,000	203,000	1,728,000
1927	387,000	1,274,000	7,798,000	251,000	1,410,000
1928	313,000	972,000	8,770,000	290,000	995,000
1929	344,000	712,000	9,482,000	319,000	737,000
1930	582,000	716,000	10,198,000	344,000	954,000
1931	491,000	801,000	10,999,000	371,000	921,000

Fair Value as Found by the Court Was Conservative.

The reproduction cost estimates of the plaintiff for each year were based upon labor costs actually experienced by the company and upon prices paid by plaintiff to Western for telephone apparatus and materials (R. I, 34; R. II, 1301).

The company's labor costs were not criticized in the court below and are not here attacked.

The prices paid for materials to Western were at all times below open market prices for the same or comparable materials. The extent to which Western's prices are lower is strikingly shown in one of the defendants' exhibits, where Western's prices to its Bell customers for the years 1926, 1927 and 1928 were shown to be from 22 to 26 per cent. below prices paid for the same materials by independent telephone companies of the country (see *infra*, p. 95).

For 1931 the market value of plaintiff's real estate and the estimate of the reproduction cost new of its buildings were reduced approximately $5,000,000 below its December 31, 1930 estimate by the company's witnesses, and this reduction was reflected in the court's finding of fair value for both 1931 and 1932 (see *supra*, p. 29).

The reproduction cost estimates of the plaintiff were conservative for all of the years and were based upon prices lower than those at which the property could have been reproduced, except for the advantages resulting from the Western relationship.

It is settled by repeated decisions of this court, "that, in order to determine present value, the cost of reproducing the property is a relevant fact which should have appropriate consideration." *Los Angeles Gas and Electric Corporation* v. *Railroad Commission of California*, 289 U. S. 287, and cases there cited.

The statutory court, in arriving at the fair value of plaintiff's property did not give undue consideration to the cost of reproducing such property. While it found that the plaintiff's reproduction cost estimates were substantially accurate, it did not adopt such costs* nor did it arrive at

* This is admitted in the defendants' brief. See page 318.

fair value by means of any formula. Its findings of the fair value of plaintiff's intrastate property were lower than the plaintiff's reproduction cost estimates, after deducting existing depreciation in accordance with the court's findings, by the following amounts in the following years:

1923	$ 4,287,348
1924	1,964,686
1926	5,395,059
1928	4,341,495
1929	2,675,978
1930	10,454,869
1931	19,530,329
1932	29,217,880

That the action of the statutory court was conservative further appears when its findings of fair value of the intrastate portion of the plaintiff's property, excluding going value, are compared with book costs, including cash working capital, materials and supplies, and construction work in progress for each of the years of the period involved

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* The figures above given are arrived at by deducting from the court's finding of fair value of the plaintiff's intrastate property for each of the years, the sum of the elements of value found separately by the court in definite sums, viz., going value, materials and supplies, cash working capital and construction work in progress. The resulting figure represents the sum at which the court ultimately found the fair value of the structural elements of the property, and this sum is then deducted from the plaintiff's proof of reproduction costs new depreciated in accordance with the court's findings. In only two years, 1925 and 1927, did the court's findings of fair value exceed the aggregate of the elements of value separately found and the reproduction costs less depreciation. Such excess is less than $3,000 for 1925 and less than $70,000 for 1927. The figures given above for the years 1930, 1931 and 1932, include the reductions made by the court on account of Western Electric prices and for the years 1931 and 1932, the reductions made by the court on account of general price declines. There was no finding by the statutory court of reproduction cost new for 1932 but in making the calculations we have taken the figure for December 31, 1931.

thus making the comparison between the same items of property.

This comparison is as follows:

COMPARISON OF COURT'S FINDING OF FAIR VALUE OF THE INTRASTATE PROPERTY WITH THE BOOK COST OF THE INTRASTATE PROPERTY

(1)	(2)	(3)	(4)	(5)	(6)
Year	Court Finding of Fair Value Intrastate Property (R. III, 2515)	Average Going Value Allowed by Court (8% of Average Reproduction Cost New as obtained from Exhibit A-43, R. IV, 2698)	Fair Value Less Going Value ((2)-(3))	Average Book Cost, plus Construction Work in Progress, Material and Supplies and Working Cash Capital Intrastate Property (A-5, R. IV, 2757-65)	Per centa (4) to
1923	$124,200,000	$10,835,500	$113,364,500	$ 95,074,135	119.24
1924	136,500,000	11,628,128	124,871,872	105,291,980	118.60
1925	148,500,000	12,457,846	136,042,154	117,730,536	115.53
1926	151,500,000	13,227,032	138,272,968	130,857,355	105.67
1927	167,000,000	13,911,777	153,088,223	146,173,197	104.73
1928	173,000,000	14,714,570	158,285,430	159,622,212	99.16
1929	184,000,000	15,584,405	168,415,595	168,988,816	99.66
1930	187,120,000	16,154,120*	170,965,880	178,157,620	95.96
1931	179,100,000	16,105,346*	162,994,654	181,925,963	89.59
1932	166,500,000	16,027,825**	150,472,175	181,552,141***	82.88

* Based on Reproduction Cost after eliminating Western Price Increase of 1930.
** Based on December 31, 1931, figure after eliminating Western Electric Price Increase of 1930.
*** December 31, 1931, figure.

Extent to Which Western's Profits Could Affect Valuation of Plaintiff's Property.

The following calculation shows the maximum effect which Western's profits could have upon the court's finding of fair value in this case in the several years. If we take the total Western materials included in the plaintiff's appraisal year by year, depreciate the same in accordance with the court's findings applicable to the entire property, and then apply to Western's materials so depreciated the percentage of profit made on Bell sales by Western in that year, the amount of Western's profit would be as follows: 1923, $2,027,061; 1924, $2,935,894; 1925, $4,919,638; 1926, $3,668,218; 1927, $5,210,192; 1928, $5,368,850; 1929,

$4,110,828.* For the years 1930, 1931 and 1932, the court by refusing to give effect to Western's price increase made in November, 1930, has eliminated all of Western's profits from the valuation of plaintiff's intrastate property.

We have already shown that Western's prices and earnings were at all times reasonable. Certainly no one would contend on any conceivable theory that all of Western's profits should be eliminated. But we have set out the above figures for the purpose of showing the court the maximum effect which Western's profits could have on the valuation in any year.

Defendants' Criticisms Are Without Merit.

Defendants contend that the statutory court, in valuing plaintiff's property, did not properly reflect an "honest and intelligent forecast" of future price levels. They claim that the error of the court, in this connection, is twofold: (1) with respect to 1932 and the future,** and (2) with respect to the years preceding 1932.

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* The above figures are arrived at in the following manner. The reproduction cost new of the labor and materials in the plaintiff's plant was obtained for each year from Sloan's appraisal. Approximately one-half of this amount consists of Western's materials (R. II, 1314). To the figures for Western's materials so obtained are applied the percentages of profit made by Western on its sales to its Bell customers for each of such years (R. III, 2518), which are then separated, as between intrastate and interstate property, and existing depreciation deducted in accordance with the court's findings. The above profits, of course, are not cumulative since they represent annual estimates of the total of Western's profits upon all plant items which would be purchased from Western for the construction of the total intrastate property, computed upon Western's prices current in each year.

** Defendants state that there was no proof in the record on which the issue of confiscation could be determined for 1932. This is not correct. The trial of this case commenced February 16, and was concluded July 1, 1932. The plaintiff introduced a reproduction cost estimate as of December 31, 1931. Proof of reproduction cost as of a later date was obviously impossible.

(1) With Respect to 1932 and the Future.

That the court in its opinion and findings did consider what it supposed to be future price levels and, indeed, gave undue weight to them is clear. In consideration of the general price trends prevailing at the time of the trial, it reduced the fair value of plaintiff's property by the following large amounts:

1. It disallowed the Western price increase of 1930 notwithstanding the fact that Western's earnings were less than reasonable. It thus reduced the value of plaintiff's intrastate property by over $4,750,000 in each of the years 1930, 1931 and 1932.* This refusal to accept reasonable Western prices resulted in trending the cost of Western apparatus included in plaintiff's appraisal to the lowest point reached by finished manufactured articles for the entire period 1923 to 1933 and only slightly above the low point of general commodity prices (see Appendix, p. e).**

2. It further reduced the fair value of plaintiff's intrastate property by sums in excess of $14,000,000 in 1931, and $23,000,000 in 1932.*** (See our brief on cross-appeal, No. 548, pp. 45 to 50.)

These large reductions were on account of a decline in general prices and the court so expressly states in its opinion (R. III, 2505). Plaintiff's reproduction cost estimates (except for items of land and buildings where the full effect

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* See pages 36 to 44 of our brief in cross-appeal, No. 548, where the facts in this connection are set forth and the reasons why the Court committed error in this respect are discussed.

** In setting up these curves plaintiff has used 1923 as a base in order to show the trend during the period involved. Western's prices were lower than those of other manufacturers (See *infra*, page 95), and the trend at the starting point does not give consideration to this fact.

*** In this connection it must not be overlooked that the Court reduced the fair rates of return in 1931 and 1932 for the same reason.

of price declines were separately reflected in plaintiff's appraisals) were not based on general price levels. During this entire period plaintiff's appraisal reflected the downward trend of Western's prices rather than the higher and the comparatively stable prices of other manufacturers.

Price trends should not have been taken into consideration by the statutory court in arriving at the fair value of the plaintiff's property for reasons which we have already explained. If, however, when the statutory court decided this case in April, 1933, it could reasonably have foreseen a continued decline in prices for a period of three or four months, it was also predictable that there would be a sharp up-turn in prices thereafter, and the court should have given consideration to this foreseeable condition, which it did not. The low price levels prevailing in 1932 and the first part of 1933 have been superseded. The major activities of the government for months have been devoted to an effort to increase the prices of labor and materials. This has been done pursuant to a policy publicly announced prior to the court's decision. In arriving at the fair value of the plaintiff's property for 1932 and the future, full weight should be given to these considerations if price levels are to be considered at all.

(2) With Respect to Years Prior to 1932.

The defendants claim that an "honest and intelligent forecast" of future price levels requires that in arriving at the valuation of plaintiff's property consideration should be given to the fact, which is now definitely known, that there were declines in the prices of Western's materials. What the plaintiff actually did was to give effect to the reduced prices in its reproduction cost estimates as they occurred. This the defendants say is not enough. For ex-

ample, they object to the use in 1924 of Western's prices current in that year and say that lower prices should be used because it is now definitely known that in 1925, 1926 and 1927 further reductions in Western's prices were made. They claim that such price reductions were foreseeable.

One of the important factors in making possible the price reductions of Western has been the increase in the volume of its business and the resulting efficiency therefrom (R. I, 329, 450). In 1923 Western sold $132,000,000 of its manufactures to its Bell customers, and in 1929 it sold $242,000,000 (R. IV, 2830). As the volume increased price reductions were made possible and were put into effect, in recognition of this relationship.

The issue of confiscation is to be tried in view of Western's relationship to the Bell System. The defendants have so contended and this court has so held. In their present position they try to escape from the consequences of that relationship and now say that it is not enough that Western's prices and earnings always be reasonable but that in addition, in arriving at the value for each year, consideration must be given to possible future price reductions.

The defendants' position cannot be fairly maintained. Such price changes were not only dependent upon volume and other considerations, but could not be accurately forecast. This is clearly shown by the fact that Western reduced its prices in 1929 relying upon a large anticipated increase in business which was not realized (R. I, 450).

Defendants would accept the prices at which Western's materials are included in its appraisal only, if such prices were as low as or lower than market prices, and if Western made no unreasonable earnings. They then would decrease the value of plaintiff's property because of reductions in

prices anticipated for the future. The result would be to impose a limitation on prices and profits, and then to use that limitation as a means of still further reductions. Surely such a proposal is not consonant with equity.

This case involves the issue of confiscation in the past, for each of the years 1923 to 1932. This is true because of the necessity of determining the disposition of amounts withheld by the company under the provisions of the interlocutory injunction. It is, therefore, essential to arrive at the fair value of plaintiff's property in each of these past years and to ascertain the revenues which it would have earned had the rates in suit become effective. This court has decided that the purpose of ascertaining probable future values is to afford a prediction as to the future "in order that the validity of rates for the future may be determined." *Los Angeles Gas and Electric Corporation* v. *Railroad Commission of California*, 289 U. S. 287. The forecast of future prices is not, as defendants claim, for the purpose of determining present prices and conditions. Those are known. Such prediction is necessary only for the purpose of determining future confiscation.

Even if there were no unusual features involved in this case, there are substantial reasons why the defendants' contentions cannot be sustained. One of them is that while the decline of Western's prices is substantial over the entire period 1923 to 1929, it is not so great as to constitute a new price level in the immediate future within the meaning of the cases. In the second place, defendants have entirely overlooked the fact that during the period 1923 to 1929 there was an increase in labor costs (R. V, 3117). These were treated by the plaintiff in the same way as Western's prices and effect was not given to them in plaintiff's appraisals until they occurred.

III.

Separation of Revenues.

(Appellant's brief, "Allocation of Chicago Intrastate Exchange Service Revenues to Interstate Toll Services," pages 49-80.)

Separation Made at First Trial and Decision of This Court.

Findings of Statutory Court and Amounts Involved (p. 75, *infra*).

Apportionment of Part of Exchange Revenue to Interstate Business Conclusively Sustained by Uncontradicted Evidence (p. 76, *infra*).

Defendants' Criticisms Are Without Merit (p. 81, *infra*).

Separation Made at First Trial and Decision of This Court.

On the first trial of this case, plaintiff in separating its property, attributed to its intrastate service all of the property included in the local or exchange plant up to the connection of that plant with its toll facilities. It apportioned between its intrastate and interstate toll service all of its toll plant, beginning with the connection of that plant with the exchange facilities. It apportioned revenues and expenses on the same basis.

This has been termed the "board-to-board" method of separation (R. I, 170).

The separation was made in this manner because the exchange rates of the plaintiff and all other Bell and independent telephone companies have always been fixed to pro-

vide compensation for every use of the exchange plant, including the use of such facilities made in connection with toll calls. Similarly, toll rates have always been fixed to include compensation only for the use of the toll plant up to the connection of that plant with exchange facilities.*

This court held that inasmuch as the subscriber's station apparatus and the other facilities of the plaintiff which were used in connecting plaintiff's telephone users with the long distance toll board were employed in the receipt and transmission of interstate messages, the actual use to which the property was put could not be ignored and that it was necessary to make an apportionment. It further said that unless the apportionment was made, the intrastate service to which the exchange property is allocated would bear an undue burden, the extent of which was a matter of controversy.

Findings of Statutory Court and Amounts Involved.

Upon the second trial of the case, plaintiff made a new separation and apportionment of its property, revenues and expenses as between its intrastate and interstate business.

The defendants have stipulated that they will not raise in this court the issue of the correctness of the separation made by the plaintiff of its property in its Chicago exchange area as between its intrastate and interstate uses (R. III, 2594). Such apportionment was made on the basis of use and in full conformity with the decision of this

* The single exception is in the case of the New York Telephone Company, where special and unusual conditions with respect to the local toll business prevail (R. I, 275).

court. In addition, they do not challenge the correctness of plaintiff's apportionment of its expenses. (See Defendants' Brief, page 49.)

The court adopted plaintiff's apportionment of its exchange revenues to its interstate service. The amounts of net revenue involved under the rates in suit are as follows (Defendants' Exhibits X-271, R. VII, 4354a): 1923, $245,042; 1924, $262,398; 1925, $309,505; 1926, $317,915; 1927, $354,372; 1928, $427,655; 1929, $486,875; 1930, $472,469; 1931, $431,580.

The defendants do not dispute that the amounts above set forth are the correct amounts of plaintiff's exchange revenue to be apportioned to its interstate revenue, if any apportionment of such revenue should be made. Their position is that exchange rates were not fixed to include compensation for services rendered by such facilities in providing access to the toll board, and that, therefore, all exchange revenues are purely intrastate in character and must be so treated.

Apportionment of Part of Exchange Revenue to Interstate Business Conclusively Sustained by Uncontradicted Evidence.

The question involved is purely factual: Were plaintiff's exchange rates fixed to compensate it for all uses of

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* In separating and apportioning the subscribers' stations, subscribers' lines and local central office equipment as between their intrastate and interstate uses, the company's witnesses collected compiled, analyzed and classified for each year of the period from two billion to two billion eight hundred million originating and incoming exchange and toll calls in the central offices in Chicago (R. IV, 2701). The separation was not based merely upon the number of calls but upon the holding time and all elements affecting the use of the property (R. I, 182).

its exchange facilities including the toll use of such facilities? If it has been shown that the exchange rates were fixed to include compensation for every use of the exchange facilities, including the interstate use made of them in the toll business, then the rates paid for such services cannot be considered as producing merely intrastate revenue.

It is clear from the evidence that throughout the history of the telephone business, exchange rates have been fixed to include compensation for all uses of exchange facilities including connection with the long distance plant, and that toll rates have been fixed to provide compensation only for the use of the toll facilities up to the connection with the exchange plant. The witnesses who testified on this question were men of wide experience in the telephone business.* They spoke with authority on this subject matter and the defendants did not call a single witness to dispute their evidence.

C. O. Bickelhaupt, now Assistant Vice-President of the American Company who had more than 20 years' experience in rate making, makes the following clear statement in connection with this subject matter:

> "It has been the general practice of telephone companies throughout the United States to separate or classify the telephone service into exchange service and toll service, and to charge separate rates for each class of service. When a subscriber pays his exchange rates, he is entitled to exchange service, which has always included the right or privilege of connection with the other telephones connected with

* See the testimony of Carroll O. Bickelhaupt (R. I, 270-294); Lambert N. Whitney (R. I, 295-299); Allen B. Crunden (R. I, 300-308); W. K. Kruse (R. I, 263); and Andrew Sangster (R. I, 254-261).

> the same exchange, including the right to call or be connected with the toll or long distance board, in order to send or receive toll and long distance messages which come over the toll facilities. When toll lines are connected with exchange lines, the subscriber who pays the toll rate for a given toll call is entitled to the use of toll facilities.
>
> * * * * * *
>
> "The exchange rate covers every use made of the exchange telephone, just as it did at the beginning of the telephone industry. That has always been so in all of the telephone industries with the possible exception of New York where special conditions prevail with respect to the local toll service."

The above quoted testimony is fully supported and confirmed by that of four other witnesses (see note, page 77, *supra*)—it is not denied or disputed in any particular by any witness.

After the completion of plaintiff's entire case the city called three witnesses, Wray, Cummings and Hill, all of them with telephone experience covering many years, and they testified at length on several subject matters involved in this controversy. They were not called upon to, and did not contradict in any particular the plaintiff's evidence that exchange rates were fixed to provide compensation for all services rendered by means of exchange facilities. The defendant Commission has an engineering department (O.R. V, 1854). It called no witnesses whatever in connection with this subject matter. The evidence of the plaintiff stands absolutely unchallenged and uncontradicted although the record clearly discloses that both defendants, the City of Chicago and the Commission, had available for

their use witnesses who were familiar with the particular matter under investigation.

It is obvious that every term which is used in a rate schedule does not need to be and cannot be defined in such schedule. For example, in the plaintiff's exchange schedules applicable to Chicago, a single-party business service is defined simply as "Class 1 M. B.—Single Line" (R. VIII, 4924A). Everyone knows that there is furnished as a part of that service a telephone instrument and all other equipment necessary for rendering the service, and all this is done without the facilities being listed and described.

It does, however, appear that in many places in both exchange and toll service schedules filed by Bell and independent companies with various regulatory bodies, the terms which we are now discussing, viz., "exchange services" and "exchange rates" were from time to time defined when there was a reason for doing so. *There is not a single instance in which such a definition was made where it does not fully conform with plaintiff's position.*

As far back as 1917, the toll rate schedule of the American Telephone and Telegraph Company *filed with the Illinois Commerce Commission* contained the following provision (Exhibit A-66, R. IV, 2786B):

> "The service covered by this tariff consists in furnishing for the use of patrons facilities, other than exchange facilities, intended for use in telephonic communication between the points listed. The exchange facilities used in connection with this service are the facilities required to establish connection between an exchange station and the toll board, or between an exchange station and the toll trunks, when such trunks are employed to effect connection with the toll board, and the use of such facilities is covered by the charges for exchange service."

An entirely similar provision is found in the toll rate schedule of the Illinois Bell Telephone Company filed with the same commission, effective October 1, 1925 (Exhibit A-221, R. V, 3092), and in the schedules, toll and exchange, filed by many independent and Bell companies with the public service commissions of the several states for the period 1920 to date. Exhibits A-67 (R. IV, 2787-92) and A-68 (R. IV, 2792A-2813) contain a list of numerous schedules filed by Bell and independent companies with the public service commissions of seventeen states. The rules of the Public Service Commission of Louisiana, effective January 1, 1913, contain a substantially similar provision (Exhibit A-67, R. IV, 2792), as does likewise an order passed by that Commission as long ago as November 20, 1902.

A substantially identical definition appears in the license contract between the American Telephone and Telegraph Company and the Illinois Bell Telephone Company, executed in 1919 (Plaintiff's Exhibit 7, at O.R. IV, 1205), and reaffirmed on September 25, 1930 (Exhibit A-206, p. 9, R. V, 3007).

At the first hearing of this case, the defendant Commission introduced as Exhibit 27 (O.R. I, 259), the order of the Interstate Commerce Commission of November 2, 1926, relating to depreciation charges of telephone companies. At page 292, the Interstate Commerce Commission quotes from the brief of a committee of the National Association of Railway and Utility Commissioners, the following statement:

> "Under the interstate toll schedules in force in this country, the telephone lines between the toll operator's position and the local switchboard, and be-

tween the local switchboard and the subscriber's premises are considered as purely local property, and any cost in connection with the maintenance, operation and depreciation of those lines, or of a return upon the investment in them, if covered at all, is covered by the charges for local telephone service. *In other words, in the make-up of the rates for local telephone service, the service which the subscriber gets in connection with interstate toll business, up to the point where he talks to the toll operator, is paid for as a local service"* (Emphasis ours).

This evidence is conclusive. It not only comes from a wholly outside and independent source but from a body of public officials charged with the duty of regulating the various operating telephone companies which comprise the Bell System and all independent telephone companies in the United States. It shows that all services which were rendered by means of exchange facilities, including the use of such facilities in connecting subscribers with the toll plant, were paid for as local service and by means of the local rates. There is no doubt as to the understanding which the various public service commissions of the United States had in connection with this matter. They knew of the existence of this universal custom in the making of exchange rates. They had recognized it at a time before the first trial of this case. In the defendants' brief they make no reference to this testimony. They simply ignore it.

Defendants' Criticisms Are Without Merit.

Defendants criticize the finding of the lower court in making the apportionment of plaintiff's exchange revenues upon the following grounds:

FIRST: That the question involved has already been decided by this court adversely to the plaintiff's contention.

SECOND: That the plaintiff made no proof that there was a universal understanding of the terms "exchange services" and "exchange facilities" in the telephone business, or that such general understanding had any applicability to the plaintiff's Chicago area property.

THIRD: That plaintiff's treatment of its pay-stations is inconsistent with its position in this case.

FOURTH: That the inclusion in plaintiff's exchange rates of compensation for all services rendered by means of exchange facilities is in violation of the Illinois Public Utilities Act.

We will now discuss these contentions separately:

1. The defendants' claim that this specific question has been decided by this court is based upon the statement appearing in the opinion in this cause that "exchange facilities" of plaintiff were used to render three different kinds of service, one of which was called "exchange service, all of which is intrastate," and upon the further statement in the same opinion that unless an apportionment of plaintiff's property was made as between its intrastate and interstate uses it was obvious that the exchange service would bear an undue burden, the extent of which was a matter of controversy.

The question here presented was not and could not have been before this court on the former appeal and was not in fact determined by it. As shown above, plaintiff's separation in the former case was made by the board-to-board

method, and all that this court decided in that connection was that such method did not give recognition to the use of plaintiff's exchange facilities in its interstate business, and that an apportionment would have to be made which did give such recognition.

Defendants' position comes to just this: that this court having directed an apportionment of plaintiff's property in accordance with its use respectively for intrastate and interstate purposes determined that no part of plaintiff's exchange revenues could properly be apportioned to its interstate business even though the evidence should conclusively establish and all parties to the case should admit that a definite portion of plaintiff's exchange service revenues were received by it in payment for the use of such facilities in its interstate business!

This court in discussing the apportionment which should be made, said:

> "At the threshold of the discussion, we are met with the fact that, in these findings, the Commission and the court made no distinction between the intrastate and the interstate property and business of the Company. It appears that the property of the Company in Chicago is used to render (1) what is called exchange service, all of which is intrastate, (2) intrastate toll service over its own lines and under arrangements with companies other than the American Company, and (3) interstate toll service, which includes all the toll service rendered under arrangements with the American Company. The Company introduced evidence separating the intrastate and interstate business and also the intrastate exchange business. While the court regarded these computations as correct, and approved the method in which they had been made, still the court made

> no specific findings based *on a separation of the intrastate and interstate property, revenues and expenses*, but determined the issue on the basis of the total Chicago property of the Company" (Our emphasis).

It seems clear that what this court desired was a separation of the intrastate property, revenues and expenses to the end that no undue or unfair burden should be imposed on either the intrastate or the interstate business of the plaintiff. This is exactly what has been done in this case.

2. The defendants urge that the plaintiff has not established that exchange rates are fixed to include all compensation for use of exchange facilities, either in the telephone business generally or for the Chicago exchange area. Most of the defendants' argument on this question is based upon their assumption that in order to prove the existence of such a universal understanding the plaintiff must produce Chicago exchange schedules specifically defining exchange rates and exchange services. We have fully discussed this question at page 79, *supra*.

The defendants find themselves in an embarrassing position with respect to the toll rate schedule filed by the plaintiff with the Illinois Commerce Commission in 1925. That schedule contained a specific statement that the exchange rates of the plaintiff included compensation for the toll use of the exchange facilities (Ex. A-221, R. V, 3092). The defendants would have it appear, however, that this filing showed a change in the plaintiff's practice and that before that date exchange rates were not so fixed. The evidence shows the contrary. When the 1925 filing was sent to the

Illinois Commission there was a covering letter in which the plaintiff stated:

> "As stated above, this new schedule makes no change in our toll rate schedules or practices * * *" (Exhibit A-220, R. V, 3091).

The case of *Chicago Telephone Co.* v. *Illinois Manufacturing Co.*, 106 Ill. App. 54, upon which the defendants rely, does not decide or attempt to decide the question here discussed.

Defendants claim that the general description of exchange service appearing in plaintiff's filings disproves its contentions. A casual reading of this description discloses that the full services furnished in return for the exchange rates are not set forth. It is also clear that the wording is especially designed to differentiate between general exchange subscribers and neighborhood exchange subscribers.

3. Defendants claim that plaintiff's methods of dealing with local and long distance messages at its public pay stations is inconsistent with its claim that a portion of its exchange revenues representing the interstate use of its exchange facilities should be apportioned to its interstate business.

For the convenience of the public, plaintiff maintains pay stations where all persons, whether they have telephones in their residences or places of business or not, may make either local, intrastate toll, or interstate toll calls. These stations represented during the period 1923 to 1931 from 1.6 per cent. to 2.35 per cent. of the plaintiff's total stations. The exchange revenue derived from such stations during the same period varied from $3,000,000 to almost $4,700,000 annually and amounted to approximately

9 per cent. of plaintiff's total exchange revenues (Defendants' Brief (Appellants), Appendix, p. 37). The exchange revenues derived from these stations were approximately four times as much per pay station as the revenues derived by plaintiff from its average station.

The exchange rates received by the plaintiff from its individual subscribers compensate it for their use of exchange facilities in transmitting toll calls. The situation is identically the same at a pay station. At a pay station the public may be considered to be the subscriber; it uses the exchange facilities as a means for reaching the toll plant for the transmission of both intrastate and interstate messages, and the exchange service revenues paid by the public at the pay station include compensation for the entire use of such exchange facilities by the public.

The plaintiff deals with the public at the pay stations on the same basis as it deals with the remaining 98 per cent. of its stations. But if the defendants' contention that there is a difference in this situation were correct, this would fall far short of establishing their claim. The most that it would prove would be that the company for the convenience of the public has made an exception to its general rule. That exception would be based upon the practical necessity of recognizing in a rate structure differences in the situation arising out of conditions under which service must be given to the public.

4. Defendants urge that plaintiff's position that the exchange rates are fixed to include compensation for all services rendered by exchange facilities, including the interstate use of such facilities, results in a showing that plaintiff's rate schedules have been filed in violation of the

Illinois Public Utilities Act. Their argument in this respect is predicated upon two propositions: (a) that a specific definition was not filed with the commission, and (b) that rates so fixed will result in a discrimination between toll users and non-toll users.

We have already shown that every word in a tariff cannot be defined in that tariff, but that the words used must be read in the light of the universal custom of the business. With this point in mind, it is clear that every filing of the plaintiff's exchange rate schedules fully informed the commission and the public of the services which were paid for through exchange rates.

The defendants claim that the practice results in a discrimination between subscribers who use the toll service and those who do not. The point has no practical substance because during the course of a year from 85 to 90 per cent. of telephone subscribers do use the toll service (R. I, 278). But whether they do or not, each subscriber has the right to such use and the resultant advantage therefrom.

The question here is whether exchange rates were fixed to provide the compensation for the total use of exchange facilities. The question is not as to the desirability of the practice or whether it results in an unfair discrimination. All such matters are for the determination of the State commission having jurisdiction.

The showing made by the plaintiff is conclusive. Exchange rates cannot be treated as producing merely intrastate revenue when a portion of the service for which they provide compensation is interstate in character.

IV.

Western Electric Company's Prices and Earnings in Its Bell Business Have Always Been Reasonable.

(Appellant's Brief, "Western's Profits and Prices," pages 233-315.)

Decision of This Court with Respect to Western Electric Relationship.

Relationship of Western to Bell System and Character and Extent of Its Business (p. 89, *infra*).

Findings of Statutory Court as to Reasonableness of Western's Prices and Earnings (p. 91, *infra*).

The Decision of the Statutory Court that Western's Prices and Earnings Were Reasonable Is Fully Sustained by the Evidence (p. 94, *infra*).

Decision of This Court with Respect to Western Electric Relationship.

This court, in dealing with the finding of the lower court on the first trial, in connection with the Western Electric relationship, said:

> "The Court said that it appeared that for the past fourteen years the average profit of the Western Electric Company on its total business had not been 'in excess of seven per cent. and never above ten per cent.' That fact has evidentiary value, but the finding does not go far enough. The Western Electric Company not only manufactured apparatus for the licensees of the Bell system but engaged in other large operations and it cannot be merely assumed or conjectured that the net earnings on the entire business represent the net earnings from the sales to the Bell licensees generally or from those to the Illinois Company. Nor is the argument of the appellants answered by a mere comparison

of the prices charged by the Western Electric Company to the Illinois Company with the higher prices charged by other manufacturers for comparable material, or by the Western Electric Company to independent telephone companies. The point of the appellants' contention is that the Western Electric Company, through the organization and control of the American Company, occupied a special position with particular advantages in relation to the manufacture and sale of equipment to the licensees of the Bell system, including the Illinois Company, that is, that it was virtually the manufacturing department for that system, and the question is as to the net earnings of the Western Electric Company realized in that department and the extent to which, if at all, such profit figures in the estimates upon which the charge of confiscation is predicated. We think that there should be findings upon this point:"

Relationship of Western to Bell System and Character and Extent of Its Business.

Western Electric Company of New York was organized in 1915 and acquired the assets of a predecessor corporation of the same name, organized under the laws of Illinois in 1881, at which time the American Telephone and Telegraph Company acquired a substantial interest in the Western Electric of Illinois. The American Company has owned more than 97 per cent. of the common stock of the New York corporation continuously since its organization (R. I, 318).

Under the contract of 1882, between the American Company and Western, which is still in force, the latter was constituted exclusive manufacturer of telephones as long as it should meet the demands of the Bell Associate Companies on reasonable terms. Since the date of that contract,

the American Company has done the fundamental research work on voice transmission and Western has developed apparatus to be manufactured by it (O.R. VI, 2068-2077; R. I, 319, 489).

The "Standard Supply Contract" which is in force between Western and each of the Bell Associate Companies including plaintiff, requires Western to manufacture or purchase materials which such companies may require in their business and which they may order from Western (R. V, 2988; O.R. VI, 2040). These contracts provide that Western's prices and terms to the Bell Associate Companies shall be as low as to its most favored customers under comparable conditions (O.R. VI, 2042; R. V, 2991).

Western has been engaged chiefly in the manufacture of telephone apparatus and lead covered cable, and in the purchase of supplies manufactured by others, and in their sale to the Bell Associate Companies (R. IV, 2830). Western is, in effect, the manufacturing department of the Bell System and the companies comprising that system have bought substantially all of their telephone apparatus, cable and supplies from Western, at prices which have always been lower than open market prices (R. I, 421).

From 1916 to 1931 Western sold to its Bell customers $2,135,000,000 of goods of its own manufacture, and $950,000,000 of supplies manufactured by others. Its sales to its non-Bell customers during the same period were $230,000,000 of goods of its own manufacture and $460,000,000 of supplies. Western's Bell business thus has constituted 90 per cent. of its manufactures and 82 per cent. of its total sales, including supplies (Ex. A-90 and A-109, R. IV, 2830, 2840a). Western's non-Bell business, while substantial in amount, is clearly subordinate to its main business which is with its Bell customers.

In addition to telephone apparatus and lead covered cable, Western manufactures and sells to both its Bell and non-Bell customers special commercial products, consisting principally of aviation communication, sound picture, phonograph, radio receiving and transmitting, public address, railway and scientific equipment. During the period 1916 to 1931 this business has amounted to $81,000,000, which is less than 3½ per cent. of Western's total manufactures. Approximately 92 per cent. of all special commercial products manufactured by Western were sold to its non-Bell customers (R. IV, 2840a).

Western owns and operates three large manufacturing establishments. It also has 32 distributing houses and an extensive organization for the installation of central office equipment for its Bell customers throughout the United States (R. I, 309, 310).

The factories of Western are advantageously located, well designed and efficiently equipped. Its employees are capable and well trained, and its operating costs low. Its products are of high quality (R. 1, 499-510).

During the period involved, Western owned certain subsidiaries and had contracts with other companies doing business in the non-Bell field. The nature and extent of these relationships, in so far as they are involved in this cause, are discussed *infra*, at pages 111, *et seq.* of this brief.

All of the facts above stated were established by uncontradicted testimony.

Findings of Statutory Court as to the Reasonableness of Western's Prices and Earnings.

As a result of the decision of this court there was a most thorough and exhaustive investigation of the entire business affairs of Western and its subsidiaries.

The findings of the statutory court, so far as they are material to the questions now to be determined, may be summarized thus:

FIRST: Western's prices to plaintiff and its other Bell customers have been lower during the entire period 1916 to 1932, inclusive, than prices charged by other manufacturers for comparable materials and lower than prices charged by Western to independent telephone companies and others for the same materials (R. III, 2517).

SECOND: The earnings of Western on its investment in its Bell business, on such investment less its depreciation reserve account, and its profit on sales were as follows (R. III, 2518):

	Per cent. profit on sales	Per cent. earnings on average investment	Per cent. earnings on average investment less amount of depreciation reserve account
1916	.5	.8	1.1
1917	2.3	3.6	4.4
1918	2.7	3.1	3.9
1919	3.4	3.9	5.0
1920	3.7	4.9	6.1
1921	7.7	8.7	10.7
1922	4.0	5.2	6.6
1923	3.4	4.8	6.2
1924	4.7	6.9	8.8
1925	7.2	10.2	12.9
1926	5.2	8.3	10.6
1927	6.9	10.4	13.6
1928	6.8	11.8	15.8
1929	4.8	9.1	11.7
1930	3.5	4.6	5.8
1931	5.0	4.2	5.6
1932	(3.9)*	(2.3)*	(3.3)*
For period 1916 to 1932	4.5	5.9	7.6
For period 1923 to 1932	4.7	6.1	8.0

* Red. The testimony was that the loss for 1932 would exceed $6,400,000 (R. II, 1074).

THIRD: Western made no unreasonable or unfair profit in any of its dealings with the plaintiff, except as a result of the price increase made in November, 1930. All of the telephone apparatus, lead covered cable and supplies sold by Western to plaintiff have been sold at reasonable prices, except for such price increase* (R. III, 2519).

FOURTH: Western's earnings on investment and profit on sales vary from year to year due to the relative weighting of several important factors, among which are reductions in the prices of its products, rate of turnover, changes in cost of materials and wage schedules. Western's relationship to the Bell System is permanent, not casual. It supplies substantially all of the requirements of all of the Bell Associate Companies for telephone apparatus and lead covered cable at all times. It is, therefore, necessary in arriving at what are reasonable earnings and profits on sales in Western's Bell business to take into consideration the results over a period of years and not merely a single year (R. III, 2507-8).

FIFTH: Western has no sales expense and no credit risk in its Bell business; it receives advance information of the requirements of the Bell Associate Companies for telephone apparatus and materials and as a result is able to plan its manufacturing work more efficiently and economically and thereby to sell its manufactured articles to its Bell customers at lower prices than would otherwise have been possible. These advantages are not retained by Western but are passed on by it in the prices charged to its Bell customers (R. III, 2507).

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* For a full discussion of the propriety of this price increase, see plaintiff's brief on cross appeal, No. 548, pages 36, *et seq.*

SIXTH: Commencing in 1921, Western made substantial reductions in the prices charged by it for telephone apparatus so that at the end of 1929 the level of its prices for telephone apparatus was only 58.3 per cent. of what it had been on December 31, 1920 (R. III, 2508).

SEVENTH: The earnings made by Western on its investment in its Bell business and on such investment less the depreciation reserve account, were substantially one-third lower than the earnings of other large comparable manufacturers. Its profits on sales were less than one-half of those of other large comparable manufacturers (R. III, 2508).

The Decision of the Statutory Court that Western's Prices and Earnings Were Reasonable Is Fully Sustained by the Evidence.

Under the decision of this court there are only two questions to be considered in connection with Western's prices and earnings. They are:

1. Whether Western sold telephone apparatus, lead covered cable and supplies to plaintiff at prices as low as, or lower than, such materials could have been purchased elsewhere; and

2. Whether Western's earnings in its Bell business have been reasonable.

With respect to the first question involved, the statutory court found upon uncontradicted testimony that during each year of the period in controversy Western's prices to plaintiff were lower than the prices at which comparable

materials could have been purchased elsewhere, and lower than the prices charged by Western for the same materials to independent telephone companies and others (R. III, 2517). The extent to which such prices were lower is shown by the fact that Graybar Electric Company, which acted as a distributor of Western's telephone apparatus and lead covered cable in the non-Bell field, was able, in competition with other manufacturers, to sell telephone apparatus and lead covered cable manufactured by Western, during the years 1926, 1927 and 1928, at prices at least 22 to 26 per cent. higher than those paid for the same materials by Western's Bell customers (See Defendants' Brief, p. 122). This proof was offered by the defendants. They do not and cannot question that Western's manufactures have been sold to its Bell customers at prices substantially below the prevailing market.

It remains only to consider the reasonableness of Western's earnings in its Bell business.

Western's Earnings in Its Bell Business Have Always Been Reasonable.

The statutory court found that Western's earnings on its average investment in its Bell business were 6.1 per cent. for the period 1923 to 1932, and 5.9 per cent. for the period 1916 to 1932, and that for the same periods its earnings on its average investment less the amount of its depreciation reserve account were 8 per cent. and 7.6 per cent., respectively. It also found such earnings year by year, and that Western made no unreasonable or unfair profits at any time in any of its dealings with the plaintiff, except for the price increase made in November 1930, which the statutory court eliminated from the calculations upon

which it determined the issue of confiscation for the years 1930, 1931 and 1932 (R. III, 2518-9).

The defendants contend that the statutory court erred in giving any consideration whatever to Western's earnings over a period of years and that the issue should have been decided on the basis of Western's earnings for each year separately. They assume, contrary to the evidence and the finding of the court, that Western's earnings were excessive if considered year by year.

The evidence showed and the court found that in the period 1923 to 1932 Western sustained a loss in its Bell business in one year; that in three of such years it earned less than 5 per cent. on its investment; in three other years from 6.9 per cent. to 9.1 per cent.; in two of the years, less than 10.5 per cent., and in one year 11.8 per cent. (R. III, 2518).

Considering the nature of Western's manufacturing business, these earnings from year to year appear on their face to be fair, and the court so found. In addition, it was shown by uncontradicted testimony that earnings on the average of 10 per cent. on the book cost of Western's assets devoted to its Bell business would have been reasonable (R. I, 414, 430, 520).

The reasons which impelled the statutory court to take into consideration the result of Western's operations over a period of years, as well as the results in each year, are thus stated in the court's opinion:

> "The Western Electric Company, because of its relationship with the Bell system, has no sales expense and no credit risk involved in its Bell business. By receiving advance estimates from the Bell associate companies of their requirements, it is able to

plan its manufacturing work more efficiently and economically. These factors result in reducing Western's costs, but they are not advantages retained by Western, since such reductions in costs are passed on by it in prices charged to its Bell customers. As a result of this relationship, Western has been enabled to sell and has sold its manufactured articles to its Bell customers at lower prices than otherwise would have been possible. Western's earnings on investment and profit on sales vary from year to year, due to the relative weighting of several important factors, among which are reductions in prices of its products, rate of turn over, changes in costs of materials and wage schedules. Western's relationship to the Bell system is permanent, not casual. It supplies substantially all of the requirements of all the Bell associated companies for telephone apparatus and lead covered cable at all times. It is, therefore, necessary in arriving at what are reasonable earnings on investment and profit on sales in the Bell business of Western to take into consideration the results for a period of years and not merely a single year * * *" (R. III, 2507-2508).

The entire record fully sustains these findings.

Western is engaged in the manufacturing business on a large scale. It sold more than two billion dollars of its own manufactures to its Bell customers in the period 1916 to 1931 (R. IV, 2840a). Experience teaches that the earnings of such a manufacturing company are subject to substantial fluctuations. Western's earnings on investment have varied from year to year on account of the factors stated by the court (R. I, 329, 430). In view of these facts, any determination of the reasonableness of Western's earnings in its Bell business which failed to take into considera-

tion a period of years, would have been incomplete and would have missed the purpose for which the investigation was made, viz., whether Western in its dealings with its Bell customers has made any unfair or unreasonable profit.

It needs no argument to show that Western's earnings cannot have the same stability as those of public utility companies engaged in furnishing gas, water, electric light or telephone service to a community.

The evidence shows conclusively that Western's earnings in its Bell business have been fair and reasonable over the entire period of years and have not been excessive in any year.

Earnings of Western in Its Bell Business Compared With Earnings of Other Large Companies.

Western's earnings in its Bell business were compared with those of eighty-eight large manufacturing companies which were, in fact, comparable with Western (R. IV, 2823-4; I, 333; V, 3150.) This comparison was made for the six year period 1925 to 1930 and showed that Western's earnings were approximately one-third less than the average earnings of these comparable manufacturers. During the same period Western's profits on sales were less than one-half the average profit on sales of thirty-eight of these manufacturing companies which were the only ones reporting the necessary information for such a comparison (R. IV, 2824-6; I, 334; V, 3150).

Appreciating the importance of this testimony, defendants seek to avoid its consequences by asserting that the comparison made is not a valid one for reasons which we will now consider.

That the manufacturing companies included in the list were engaged in businesses comparable with Western is not contested except in one particular. Attention is called to the fact that there were included in the list fifteen companies owning mineral deposits whose operations involved the question of depletion of assets, and it is claimed that they should have been excluded on the ground that their businesses were not comparable with Western's. If the companies referred to are excluded, Western's earnings in its Bell business are shown to be on the average 39 per cent. less than those of the remaining companies instead of only 33 per cent. when such companies are included.

The other objections urged by the defendants relate to the question of whether the investment and earnings of the companies compared are stated on the same basis as those of Western. Defendants point out that five of the eighty-eight companies used depreciation rates in conformity with those approved for income tax purposes, whereas Western's earnings on its Bell business give effect to depreciation expense charges which are higher than those approved for income tax purposes by the Internal Revenue Department. The proof is that Western's depreciation rates were based upon its own experience as determined by competent engineers (R. V., 3139), and it is reasonable to assume that all of the eighty-eight companies charged proper depreciation rates based upon their individual experience. Certainly there is no reason for rejecting the comparison on this ground.

Defendants complain that the comparison made is affected because of certain adjustments to surplus which had been made by part of the eighty-eight companies. Some of these adjustments resulted in credits and others in

debits to surplus. When consideration was given to all of them, the return on investment for the eighty-eight companies for the six-year period was reduced from 12.2 per cent. to 11.9 per cent. (R. II, 1339). These adjustments to surplus, whether proper or not, could not substantially affect the result of the comparison.

Defendants also point out that Western's operating earnings on its Bell business were compared with the earnings of the eighty-eight companies, many of whom make their returns either on a total company basis, including operating and non-operating earnings, or on a consolidated basis including the combined subsidiary and parent company earnings. These eighty-eight companies earned 11.9 per cent. on the book cost of their investment for the period 1925 to 1930 after correcting for the adjustments to surplus above referred to (R. II, 1339). During the same period Western earned 8.2 per cent. on its Bell business and 8.5 per cent. on its Bell and non-Bell operating business (A-77, R. IV, 2816; A-79, R. IV, 2818; V, 3150). The record does not disclose the earnings of Western and all its subsidiaries for this period, but for the years 1916 to 1931 such earnings were 7.6 per cent. (Exhibit A-84, R. IV, 2822; R. I, 317, 332). It is obvious that any comparison of Western's earnings, whether on the basis of its Bell business, its total operating business, Bell and non-Bell, or the business of Western and all of its subsidiaries shows that Western's earnings are low.

The defendants' criticisms are limited to minor details and do not touch in any substantial particular the essential bases upon which this comparison rests. The narrow grounds upon which defendants' attack is predicated emphasize the importance of the comparison. No one can

doubt that Western's earnings are substantially below those of these eighty-eight companies, the comparability of whose businesses with Western's is practically conceded by the defendants.

Western's Earnings in Its Dealings With Plaintiff Were Reasonable.

The statutory court found that the sales of Western to plaintiff for use in its entire business and in its Chicago area have been a reasonably fair and representative cross-section of the total sales of Western to all of its Bell customers, and that Western had not made any unreasonable or unfair profit in its dealings with the plaintiff, except for the price increase of November, 1930, to which it refused to give effect (R. III, 2519).

The defendants contend that Western's earnings in its total Bell business do not fairly measure its earnings in its dealings with the plaintiff. The evidence is clearly to the contrary. Western's profit on sales and earnings on investment in its dealings with the plaintiff for its entire business and in its Chicago area over a period of years were substantially the same as the earnings and profits made by it in its dealings with all of its Bell customers. (See Exhibits A-93 to A-98, inclusive, where the comparative figures are set forth in detail, R. IV, 2832-3).

It has never been claimed by the plaintiff that exact identity could be found in the ratio of purchases by each of the Bell Associate Companies from Western in any given year. Western develops telephone apparatus and equipment for the present and future needs of all these companies, and its plants are maintained for the purpose

of supplying their demands at all times (R. I, 407, 8). If articles of a certain type are not used during one year by one associate company, they are used in another year (R. I, 441, 447, 448). In every year Western sells large quantities of every type of apparatus which it manufactures (R. IV, 2830; R. IX, 5055-6). Western's prices are the same to each Bell Associate Company (R. I, 342).

The Chicago area of the plaintiff is engaged in rendering telephone service by means of a plant equipped with standardized Western articles and engineered and constructed in accordance with Bell System standards.

When these facts are taken into consideration, the variations which occur from time to time in the relative purchases by the different associate companies of the various items of Western's manufacture do not have any significance. The fact is, as established by the evidence and found by the statutory court, that the earnings of Western in its Bell business are a fair measure of Western's earnings in its dealings with plaintiff.

The use which was made by the statutory court of Western prices in arriving at the valuation of plaintiff's property is dealt with at page 32 of this brief, *supra*.

Western's Earnings on Its Capital Stock and Surplus Are of No Importance in Determining Whether Its Earnings on Investment in Its Bell Business Have Been Reasonable.

At a number of places in the defendants' brief tables are inserted in which Western's earnings in its Bell busi-

ness are related to the capital stock and surplus which defendants attribute to such business.*

To illustrate the effect of this procedure reference need be made to one year only, 1930. In that year the average investment of Western in its Bell business was approximately $270,000,000 (Ex. A-77, R. IV, 2816) and its capital stock and surplus apportioned to its Bell business by the defendants in their calculations was approximately $145,000,000. Defendants' method results in excluding from the base to which Western's earnings are applied $125,000,000 of its investment in such business. Further comment is unnecessary.

Western Used Proper Methods in Making Such Apportionments as Were Necessary in Order to Determine the Net Earnings in Its Bell Business.

Western has never maintained records which showed separately the cost of each article manufactured or the aggregate cost of doing business with particular customers or classes of customers, or the time at which a particular article was manufactured. The maintenance of such a system would have served no useful purpose, would have been impracticable in view of the size and complexity of Western's manufacturing operations, and the expenses incident to it would have been prohibitive (R. I, 375, 569).

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* In these tables (See pp. 246, 296, 304, 305, 307) they show rates of return which they say are calculated after excluding interest, but the fact is that interest was not excluded. The result is that even on defendants' wholly erroneous theory, the rates shown are substantially in excess of what they would have been if interest had been excluded.

The receipts from sales made by Western to its Bell customers and the amount of such sales is not in controversy (R. I, 323; R. II, 1382). Western's earnings in its total business are known. A part of the investment in and expenses of the Bell business are shown directly in the records but there was a substantial portion with respect to which allocations were necessary. Such apportionments as were necessary to be made in order to ascertain the profits in the Bell business were made on the basis of use (R. I., 323, 324, 331, 568-72). *These apportionments were made currently by Western in the conduct of its business during each of the years in controversy and were not made for the purpose of this litigation* (R. I, 469).

More than 90 per cent. of the telephone apparatus and lead covered cable manufactured by Western have been sold to its Bell customers, and more than 92 per cent. of the third type of its manufactures, special commercial products, have been sold to its non-Bell customers (R. IV, 2830, 2840a).

Western manufactures three types of articles, viz., telephone apparatus, lead covered cable and special commercial products. It makes more than 100,000 separate articles. When these are manufactured it is not known whether they will ultimately be sold to a Bell or a non-Bell customer, as both classes of customers purchase articles of the same kind (R. I, 375). The same types of apparatus, for example, relays, are made by the use of the same kind of machines, using the same materials and processes and with the same grades of productive labor (R. I, 570; R. II, 1383).

The necessary apportionments were made by using "standard shop costs" (R. I, 386, 568-72). "Standard shop costs" is an accounting method used by more than

a hundred large manufacturers in the conduct of their business (Ex. A, 254; R. V, 3127).

A "standard shop cost" is determined by the company's engineers for each of the 100,000 items of Western's manufacture. Each step in the manufacturing process is carefully analyzed. The kind and quantity of material required, the grade and amount of labor to be used, the tools and machines required for manufacture and the extent of the use of each, and the shop overheads are carefully computed. The "standard shop cost" includes both labor and materials at rates and prices estimated when the "standard shop cost" is computed (R. I, 382).

The whole problem of the apportionment in this case is to divide on a substantially accurate basis between Western's Bell and non-Bell business the property which is used in the manufacture of Western's products, such as plant and machinery, and to apportion correctly between the two businesses the cost of manufacture, including labor and materials, all on the basis of relative use. The "standard shop costs" furnish an accurate basis for such an apportionment. They include for each article manufactured, whether it ultimately reaches a Bell or non-Bell customer, a measurement of the materials used, the grade and extent of labor employed, the use of machines upon which such articles are produced, and the shop overheads incident to production (R. I, 568, 572; II, 1382, 1402).

All the "standard shop costs" in effect at a given time include the same level of material costs and the same labor rates. The aggregate of all the "standard shop costs" in effect at a given time, taken with the kinds and quantities of goods being produced at that time, provides an accurate and detailed cross-section of plant activity showing the

relative use of raw materials, labor, tools and machinery in the manufactures being made at that time.

For each of the years involved Western had these "standard shop costs" and also a complete record of the items and quantities of its manufactures sold to its Bell and non-Bell customers, respectively (R. I, 381). From these two sources it was possible to obtain the total "standard shop costs" for Bell sales and the total "standard shop costs" for non-Bell sales for that year for telephone apparatus, lead covered cable and special commercial products separately (R. I, 382 to 399). The ratio between these two totals accurately reflects for each of the three classes of products the relative use of plant, materials and labor and other elements entering into the cost of actual manufacture. Having determined these percentages of relative use in this way, the same percentages can be applied to the figures not covered by shop costs, such as, for example, general administration and development expenses, where those items are not directly allocable to one or the other classes of business.

The company's records show separately for telephone apparatus, lead covered cable and special commercial products the cost of manufacture for each year. Such totals are compared with the aggregate of the "standard shop costs" for each of the three classes of products (R. I, 382 to 399). The respective differences thus obtained (referred to in the record as the "current variations") are then apportioned between Bell and non-Bell business in the ratio that the total "standard shop costs" for Bell sales bear to the total "standard shop costs" for similar non-Bell sales (R. I, 384).

The process of arriving at the earnings on Western's manufactures sold to its Bell customers may be thus stated:

(a) Start with total Bell sales taken from the books;

(b) Deduct aggregate "standard shop cost" of items sold to Bell customers;

(c) Result is basic gross profits in Bell business;

(d) Apportion current variations between actual and "standard shop costs" and also inventory revaluations on basis above stated, and adjust basic gross profits accordingly;

(e) Result is the actual gross profit in the Bell business;

(f) Deduct from such actual gross profits, development, distribution and general expenses apportioned in the same manner;

(g) Result is earnings on Western's manufactures sold to its Bell customers.

(R. I, 381 to 399, 434).

The same basis is used in allocating between Bell and non-Bell business that part of Western's investment in the combined business which is not directly related to one or the other (R. I, 381).

Defendants call attention to the fact that "standard shop costs" have not been revised as often as there have been substantial variations between the prices of copper and lead as used in the "standard shop costs" and the actual prices prevailing therefor at various times; and to similar variations in the prices of other materials, labor and overheads. They argue that such variations destroy the validity of the apportionments. The objections urged have no merit.

The totals of the "standard shop costs" can be compared with the totals actually expended within any year and thus permit accurate check of the efficiency of manufacturing operations after making an overall adjustment for the differences in material costs and labor rates actually paid during the year and those estimated at the time the "standard shop costs" were determined, and likewise furnish a proper yardstick for making the apportionments here required (R. I, 384).

"Standard shop costs" are revised from time to time in the regular course of business (R. I, 382). Changes in material prices alone would not justify revision because obviously it is much simpler to make the overall adjustments for such changes at the end of the year than to attempt to change all the "standard shop costs" as material prices vary. Changes in manufacturing processes, in design of product, in kinds and quantities of materials used, are typical of the things which make for the revision of "standard shop costs" (R. I, 382 to 399).

At any given time there is only one "standard shop cost" for a particular article, whether such article is sold to a Bell or non-Bell customer (R. I, 383). When "standard shop costs" of all articles sold to Bell customers are aggregated for any given year and the "standard shop costs" for non-Bell sales are likewise aggregated, there is absolute identity in the material, labor and overheads entering into the "standard shop costs" of Bell and non-Bell sales, respectively, for each item manufactured. Each pound of copper and each pound of lead is carried into such aggregate shop costs at the same price for the Bell and the non-Bell products. Each hour of productive labor is similarly treated. *Since we are seeking a ratio reflecting*

the use of property and the degree of activity devoted to Bell as compared with non-Bell business of Western, the variations between actual and "standard shop costs" in prices of materials and the other elements of shop costs have no significance. This appears from the facts above stated but it is also supported by the direct testimony of Western's Comptroller (R. I, 570-2) and of two independent accountants who examined the methods used and checked the apportionments made by Western (R. II, 1379-1384, 1402).

The net variations between the aggregate of the "standard shop costs" and the aggregate of the actual shop costs are negligible for the period* (R. I, 569). One of the defendants' witnesses, Hagberg, testified that it was erroneous to consider the net variations (R. II, 1594). His testimony is directly contradicted by Western's Comptroller and the two independent accountants referred to, but even the testimony of Hagberg is limited to the narrow theoretical proposition that error might or would result from an apportionment of the net variations. Neither he nor any other witness contradicts the specific testimony of Western's Comptroller based upon an analysis of the gross variations that the use of the gross variations could not have affected the validity of the apportionments in any way (R. I, 570-572). This testimony is unchallenged.

The apportionments were made separately in each year for telephone apparatus, for lead covered cable and for special commercial products (R. I, 382 to 399). There is, therefore, no question involved of what the effect might

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* Such variations for the period of 1921 to 1930 were only two-tenths of one per cent., and for the period 1923 to 1930, seven-tenths of one per cent. (R. I, 569).

have been if the apportionments had been made by combining the result of Western's operations.

The apportionments made correctly reflect the use of Western's investment and the amount of its expenses in connection with its manufacturing activities on the basis of actual use. They are in full conformity with the decision of this court which has held that in making apportionments only reasonable measures are essential. *Smith* v. *Illinois Bell Telephone Co.*, 282 U. S. 133, 150. In the *Minnesota Rate Cases*, 230 U. S. 352, the apportionment of the plaintiff's property, which was made on the basis of gross revenue was condemned. The difference between such a method and the one here employed is too obvious to require argument.

The apportionments made conform to the realities of the situation. Western's prices to its Bell customers for telephone apparatus and lead covered cable have always been as low as, or lower than, its prices for the same articles to its non-Bell customers. The method used shows greater profits for the non-Bell business than for the Bell, which is in conformity with the relative prices charged such customers (Exhibits A-77 and A-79; R. IV, 2816, 2818).*

Plaintiff has shown the entire practicability of the method and has demonstrated that when applied it gives a substantially accurate result.

This method was used by Western year by year in the regular course of its business for ascertaining its profit in its Bell and non-Bell business, respectively. It relied upon the information so obtained in making substantial price

* The earnings as stated on these exhibits do not reflect the adjustments which were made by the statutory court.

reductions to its Bell customers and in administering its general business affairs (R. I, 329, 379, 518).

The statutory court, after a thorough examination of all the evidence, adopted the apportionments. Its action in so doing was clearly correct. The apportionments as made properly related to Western's Bell business its correct part of the manufacturing facilities used, and the costs incident to, such Bell manufactures.

Western, in arriving at its investment in and earnings on its Bell business determined the same by the use of "standard shop costs" applicable to the sales made in a given year and not to the production of that year. This is criticized by the defendants. The impracticability of making an apportionment on defendants' suggested basis is apparent. There is no substantial lag in Western's business between the time of manufacture and sale and an apportionment based upon cost of production in a given year would not be substantially different from one based on cost of sales. The rate of turn over is the same for Bell and non-Bell business (R. II, 1341).

Apportionment of Western's Development and Research Expenses Has Not Imposed Any Burden Upon Its Bell Business but Has Resulted in Substantial Benefit to That Business.

Defendants claim that Western unduly burdened its Bell business by failing to allocate to six companies with which Western had dealings, their proper proportion of Western's development and research expenses, and by failing to credit to Western's Bell business the proper portion of the revenue or value received by Western from them.

In order to understand the claims urged by the defendants it is necessary to state briefly what these companies are and their relationship to Western.

International Western Electric Company, its predecessors and its various subsidiaries, which in the main were owned 100 per cent. by Western, operated in Europe and elsewhere abroad. The first of these foreign subsidiaries was organized in 1882. These companies were sold as of September 30, 1925 to the International Telephone and Telegraph Corporation. The name of International Western Electric Company was thereupon changed to International Standard. Since such sale Western has had no interest in these companies, which were engaged in the manufacture and sale of telephone apparatus and lead covered cable outside the United States and Canada. International Western and its subsidiaries purchased for resale during the period 1916 to September 30, 1925, more than $35,000,000 of telephone apparatus and lead covered cable manufactured by Western. Western and International Western interchanged patent rights and complete design and technical information for the manufacture of telephone apparatus (R. I, 320, 493, 494; R. IV, 2820A).

International Standard Electric Corporation has been engaged since September 30, 1925, in the manufacture of telephone apparatus in the foreign field. It purchased from Western for resale during the years 1926 to 1931, inclusive, $9,650,000 of Western's manufactures. There is a contract between the companies by which patent rights are interchanged and under which International Standard pays Western a royalty of one-half of 1 per cent. on sales in the foreign field of telephone apparatus and cable not

purchased from Western or Northern, whether embodying Western's patents or not. Western has never owned any interest in this company (R. I, 494; R. IV, 2820A).

Northern Electric Company, Limited, manufactures and sells telephone apparatus and lead covered cable in the Dominion of Canada and Newfoundland, and has purchased from Western for resale from 1926 to 1931, inclusive, $10,750,000 of Western's manufactures. Western and Northern have a contract for the interchange of patent rights, design and technical information, sales distribution and accounting methods, and engineering and managerial service and advice. Under this contract Northern pays Western a 1 per cent. royalty on Northern Electric sales of telephone apparatus, without respect to whether such apparatus embodies Western's patents. Western has never owned more than 43.6 per cent. of the common stock of Northern (R. I, 491-3; R. IV, 2820A).

Automatic Electric Company is a manufacturer of a particular type of automatic central office equipment known as "step-by-step" of which Western has purchased a substantial amount for its Bell customers. Before Western made any contract for the purchase of telephone equipment from Automatic and at all times since, there had been a cross-licensing patent agreement between the two companies with respect to this type of equipment. In 1919, when the first purchase contract between the parties was made, the American Company procured an option to purchase a controlling interest in the stock of Automatic, and when Western renewed its purchase contract in 1924, an option to purchase the control of Automatic, which theretofore ran to the American Company, was granted to Western. No

money consideration passed for this option. After Electrical Research Products, Inc., was organized, this option was transferred to it with other non-Bell assets of Western. In 1927 negotiations were entered into with the owners of Automatic who felt that the option might pass to other hands and were anxious to procure the surrender of this option and thus assure their control of the manufacturing company which was supplying equipment to the operating telephone companies, both domestic and foreign, which they had acquired. As a result of these negotiations, the option was surrendered for $4,000,000. At the same time a new contract for a ten year period expiring December 31, 1936, was executed, by the terms of which Western procured a reduction of 2½ per cent. on the price of "step-by-step" apparatus thereafter purchased by it from Automatic. Western has never had any interest in this company (R. I, 346, 462-5, 565, 580, 584).

Electrical Research Products, Inc., which is a wholly owned subsidiary of Western, commenced business January 1, 1927. This company was organized to take over Western's business in certain special commercial products, the chief of which was the sound motion picture business, and certain non-Bell assets of Western. It has never been engaged in the manufacture or sale of telephone apparatus. It is licensed to use Western's inventions in its particular field, and Western is licensed to use any inventions arising out of the development work of Products. During the period 1927 to 1931, Products has purchased over $46,000,000 of Western's manufactures (R. I, 321-2, 343, 454, 497, 567; R. IV, 2820A).

Graybar Electric Company was organized for the purpose of segregating in another corporation the distribution of telephone apparatus, lead covered cable and supplies to non-Bell customers in the United States. Graybar, on January 1, 1926, took over the non-Bell business formerly done in the United States by the Supply Department of Western. Graybar is not licensed to use Western's inventions, but does distribute outside the Bell System telephone apparatus and lead covered cable manufactured by Western. Western has sold more than $42,000,000 worth of such products to Graybar during the period 1926 to 1931. The resale of these products constitutes only 15 per cent. of Graybar's total sales. The remainder of its business consists in buying supplies from various manufacturers other than Western and selling them to non-Bell customers. From the date of Graybar's organization until December 31, 1928, Western owned Graybar 100 per cent. but on the latter date Western sold its stock in Graybar to Graybar Management Corporation, an organization of Graybar employees. Since that date Western has had no interest in Graybar except the ownership of a non-voting participating preferred stock which was taken in part payment of the purchase price, and which is required to be retired gradually. Western's stock was sold to the Graybar Management Corporation without profit and because of the desire of Western no longer to engage in the business of selling telephone apparatus, lead covered cable and supplies to telephone companies in the United States outside the Bell System (R. I, 321, 332, 491, 562; R. II, 1343; R. IV, 2820A).

The claim that Western has made large profits through its various subsidiaries, in the exploitation in the non-Bell field of inventions and ideas developed in Western's Bell

business, the cost of which has been charged in substantial part to its Bell customers, is completely refuted by the evidence. Western's earnings on its combined operating Bell and non-Bell business for the period of 1916 to 1931 were on the average 7 per cent. per annum on its investment (R. IV, 2817, 2819). During the same period of time, the earnings of Western and all of its subsidiaries were on the average 7.6 per cent. per annum on their total investment (R. IV, 2822). Included in these earnings are the proper proportion of the undistributed profits of Northern Electric, in which Western owns only 43.6 per cent. of the common stock, and also the proper proportion of a non-recurring profit made by Western on the sale of the International Western to the International Telephone (R. I, 331-2, 338).

We come now to the specific claims made by the defendants in their brief with respect to Western's dealings with the six companies referred to above. In discussing the International Western, International Standard, Northern and Automatic Electric, it is stated at page 272 of appellants' brief:

> "Appellee did not allocate any portion of Western's Development and Research expense to them and did not credit as an offset the revenue and value received by Western from them for such licenses."

Western's total sales of its own manufactures to its Bell customers during the period 1916 to 1930 were $1,972,000,000 (R. IV, 2830), against which it charged $92,000,000 of development expense (R. V, 3654A). During the same period, it sold $224,000,000 of its own manufacture to its non-Bell customers (R. IV, 2830) against which it charged $16,000,000 of development expense (R. V, 3654A).

Western would have incurred in the development of its telephone apparatus and lead covered cable for the Bell System the same development expense if none of such products had been sold to non-Bell customers (R. I, 490-1). It sold $154,000,000 of such products to its non-Bell customers. The expense of the development of these products was spread in the same ratio over its entire business, Bell and non-Bell. In addition, Western sold a total of more than $70,000,000 of its special commercial products to its non-Bell customers. Such sales, which amounted to 92 per cent. of Western's total sales of such products, bore their proportionate part of the development expense required for such products. *During the period 1916 to 1930, inclusive, there was thus included in the sales price to Western's Bell customers a loading of 4.7 per cent. for development expense, and in its sales to non-Bell customers a loading of 7.1 per cent. for such expense.*

But this is not all. Western has not incurred any development expense for the special commercial products manufactured by it for Products since that company commenced business (R. I, 516). During the period 1927 to 1931, development expenses for special commercial products to the extent of $8,900,000 were charged to and paid for by Products (R. IV, 2821), and in addition, $3,500,000 of development expense incurred in the Bell business in connection with manufactures was included in the prices of the special commercial products sold by Western to Products (R. I, 343, 454, 497, 567). To the extent of this latter sum, Western's Bell customers have been relieved of charges for development which they otherwise would necessarily have borne and which were made for their benefit.

The defendants in their presentation wholly ignore this testimony.

Western received during the period October 1, 1925 through 1931, from Northern, $695,000, and from International Standard, $918,000 as royalties which were paid by these companies under the contracts above referred to, on account of telephone apparatus sold in the foreign field. These two amounts, aggregating $1,613,000, were credited to the cost of sales, with the result that the expense of Western's Bell business was reduced over this period by approximately 90 per cent. of this total amount or $1,500,000 (R. I, 343).

The defendants claim, in addition, that Western's Bell business has been burdened because Western granted the right to use its inventions in the manufacture of telephone communication equipment to the four companies above referred to, and that the telephone apparatus and cable which these companies manufactured did not bear any part of Western's development expense and that no credit was given to Western's Bell business on account of the use of inventions by these companies.

In this connection it is important to consider the fact that the principal advantage to Western and its Bell customers arising out of the ownership of patents and the interchange of patent rights consists in having available the right to use every sort of telephone apparatus and lead covered cable which may be desirable (R. I, 491, 650).

The interchange of patent rights and information with these companies has resulted in great advantage to Western's Bell customers.

One illustration of this is the acquisition by Western from Northern Electric of a process for tinning wire. This

process resulted in a saving of over $6,000,000 in a period of thirteen years prior to 1932 in Western's Bell business and no charge was made on account thereof to Western's Bell customers (R. I, 492-3). Western received from International Western the right to use the inventions of Siemens and Halske, a large telephone manufacturing company in Germany, which did fundamental research work in the telephone art (R. I, 495-6).

There were only four companies to whom Western granted the right to use its inventions or processes in the manufacture of telephone communication equipment. Two of these companies, Northern and International Standard, paid royalties to Western which, as we have already shown, operated to reduce the expense of Western's sales to its Bell customers (*supra*, p. 118). Western had no interest in International Standard and owned less than a control of Northern (R. I, 320-1, 494).

Western granted Automatic the right to use certain of its inventions in connection with the manufacture of "step-by-step" equipment in exchange for the right given to Western to use Automatic's inventions. This contract was made by parties dealing at arms' length and there is no suggestion in the record that Western gave any greater benefit than it received or that its Bell customers were harmed in any way by this cross-licensing arrangement (R. I, 462, 565, 584).

This leaves but one company, International Western, which was a wholly owned subsidiary prior to September 30, 1925. We have heretofore pointed out the advantages under which Western and International Western exchanged patents and information (*supra*, p. 112). There is no rea-

son why International Western, under the circumstances, should have paid any royalty to Western.

If, however, International Western had paid a royalty to Western on the same basis as International Standard, a wholly independent company which later occupied the same field, that is, one-half of 1 per cent., and the payment so made had been credited to Western's Bell business, the effect would have been negligible. In the year 1924 International Western's sales in the foreign field were the largest of any year. They amounted to $43,000,000 (R. VIII, 4557). If the royalty is applied to all of these sales, including telephone apparatus purchased from Western which had already borne its share of Western's development expense, the maximum credit to Western's Bell business would be approximately $200,000 and would increase the return on Western's Bell business in the year 1924 by less than 13/100 of 1 per cent.

The defendants state that "Western made up for the reduced sales prices to Graybar on its manufactures * * * by the unreasonably large return which it received on its investment in that company during the period 1926 to 1928, inclusive" (Defendants' Brief, p. 122). Western's telephone apparatus and lead covered cable were sold to Graybar at prices always as high and usually higher than Western's prices to its Bell customers (R. I, 456). There is no basis for claiming that Graybar received reduced prices.

Graybar has no license to use any of Western's patents. It merely acted as distributor of Western's telephone apparatus, lead covered cable and certain other products in the non-Bell field, pursuant to a contract between the parties (R. I, 491; R. IV, 3943-3956). As shown above, de-

velopment expenses which would otherwise have been necessarily charged to Western's Bell business have been spread over the more than $42,000,000 of sales of Western's manufacture to Graybar. Western made no profit out of the sale of its common stock in Graybar to Graybar Management Corporation and the transaction by which Western acquired a participating preferred stock was an ordinary and usual business arrangement for the purpose of safeguarding Western's investment until it should have been paid in full for the stock (R. I, 321, 366; R. II, 1343-4). A third of this stock had been retired before the trial of this cause and the contract requires that the remainder be retired over a period of years (R. I, 333; R. VI, 3934).

The claim that Electrical Research Products has made large profits out of the exploitation of inventions developed by Western and used by Products in the non-Bell field, is without substantial merit. When Products was organized, money was risked in an uncertain and hazardous business in order to carry on its operations. In the beginning it was difficult to interest motion picture producers in sound recording and reproduction. In the first year of its operation, as well as in 1931, this company lost money in its sound picture business, while in the intervening years it made substantial profits (R. I, 497-8). The total profits made out of the recording and reproduction of sound in connection with the motion picture business from the year 1926 to the year 1931, inclusive, by the Western, Electrical Research Products and its subsidiaries, were $18,000,000 and amounted to 14½ per cent. on the investment in such business (R. I, 567). During the past five years practically all of the principal motion picture theatres in the United States have been equipped for sound

reproduction. The profits made in the past by Products are substantially larger than can be hoped for in the future (R. 1, 498).

The $4,000,000 profit which Electrical Research Products made on account of the surrender of the option to the Automatic was treated, as it should have been, as a profit on the non-Bell business. Such profit was made because the owners of the Automatic Electric, on account of its rapidly expanding domestic and foreign business, were willing to pay $4,000,000 in order to regain control of the manufacturing company which supplied their foreign and domestic trade (R. I, 462-5). A transaction of this character ought not to be considered in determining Western's profits with Bell customers.

The defendants assert that the plaintiff's claims in connection with this $4,000,000 cannot be sustained because the profits of Automatic are not shown in the record and it is, therefore, impossible to say that its prices to Western were reasonable. The record shows that the prices under the contract between the parties were on a cost-plus basis (R. VIII, 4614-5, 4617, 4619, 4624-5).

Western has never owned any interest in Automatic or its sales subsidiary. The contracts between the parties were made at arms' length and their fairness has not been challenged.

There is nothing in any of these relationships which has resulted in any disadvantage to Western's Bell business. On the contrary, the entire relationship has been shown to be fair in every respect and of great advantage to Western's Bell customers.

There Should Be No Deductions from Western's Average Investment.

Western's average investment consists of plant, merchandise, receivables and cash less current payables, all at cost to Western except merchandise, which is cost or market, whichever is lower. Such investment does not include any amount for patents, good will, development expenses or going concern value. Substantial portions of Western's buildings and other property, planned and built under the supervision of its own engineers, are included at a lower cost than if they had been built by others. These facts are not disputed (R. I, 330, 342, 500; Court's finding, R. III, 2507).

Western's investment includes only the assets used by it in its business and at the risk of that business.

The defendants claim that Western's investment is overstated and that the statutory court should have deducted therefrom the amounts of the following classes of items:

(1) Notes Payable.

The defendants claim that there should be deducted from Western's average investment amounts borrowed from the American Company ranging from $17,000,000 to $22,000,000 per year for the years 1923, 1929 and 1930, and smaller amounts in other years, and amounts borrowed from the trustees of Western's pension fund, banks and others, ranging from $6,000,000 to $26,000,000 per year for the period 1922 to 1930.

While these loans were either payable on demand or in a period of less than one year the moneys represented by

these borrowings were invested in and were at the risk of Western's business and were properly included in Western's average investment.

From 1916 to 1930 Western's investment in merchandise necessary in the transaction of its Bell business increased more than $70,000,000 and its plant devoted to such business more than $120,000,000 (Ex. D-56, R. V, 3696). Due to this tremendous expansion, primarily required because of the growth of Western's Bell business, large sums of money were borrowed on temporary loans until appropriate permanent financing could be made either through bond or stock issues. These temporary borrowings, as made by Western, were at appropriate times converted into permanent capital (R. VIII, 4549, 4558).

Concerning these facts there is no dispute. The problem is not, as erroneously assumed by the defendants, whether as between Western and its creditors these obligations must be paid on demand or in a short time. As these short term obligations represented assets devoted to Western's business and at the risk of such business, it was entirely proper to include them in Western's average investment (R. I, 564; R. II, 1330).

Defendants claim that in the balance sheets contained in Western's annual reports these notes payable were included as current liabilities and that in this case Western has taken a different position by failing to deduct the same notes from average investment. In order to show the actual financial condition of Western its balance sheets necessarily classify obligations as between long and short term maturities. That classification has no bearing upon the problem here under consideration and involves no inconsistency with plaintiff's present position. It is interesting, in this con-

nection, to note that the defendants, in their treatment of "Rate Base Value" of the plaintiff at page 316 of their brief, include, in its average outstanding capitalization upon which they calculate its return, notes to trustees of its pension fund and advances from System Corporations of the same identical kind which they now claim should be deducted from Western's average investment.

(2) Reserve for Pension Fund and Working Reserves.

Defendants' claim that there should be deducted from "average investment" of Western amounts varying from $2,000,000 to $15,300,000 a year during the period 1923 through 1927, representing the reserve for pension fund purposes; and also working reserves for the years 1926 to 1930 varying in amount from $6,900,000 to $11,100,000.

As early as 1906, Western had a pension fund, but it was not until 1927 that provision was made for segregating this fund in the hands of a trustee. During the period 1916 to 1927 certain reserves for pension fund purposes were set up on Western's books, but the money represented by these reserves remained continuously invested in its business (R. I, 461, 564).

An example of the working reserves referred to is an accrual for federal income tax purposes. If we take for illustration a single year, say 1927, Western accrued for each month as a bookkeeping reserve the amount of the estimated income tax which would be payable in respect to such month's earnings. Of the amount accrued for January, 1927, there would be one-fourth due respectively in March, June, September and December, 1928. These particular amounts would therefore be in the business for a period of from thirteen to twenty-two months. Each sub-

sequent month's accrual would be at the risk of the business for one month less (R. I, 461-2).

The arguments advanced by defendants for deducting from "average investment" of Western the reserve for pension fund purposes and the working reserves rest upon the same basis as those made by them in connection with notes payable, which we have already discussed (page 123, *supra*). Western is entitled to earn on the total amount invested in its business which is represented by property at the risk of that business. There is no merit in defendants' claim that these reserves should be deducted from the "average investment" representing such property.

(3) Claimed Excess Cash.

Defendants claim that there should be deducted from Western's "average investment" during the various years involved amounts of cash varying from $900,000 to $20,500,000, the latter sum being for the year 1925, which they assert were not needed by Western in its business. The principal reason assigned for this contention is that the American Company assists in financing Western at a relatively low cost for the benefit of the Bell Associate Companies and apparently defendants would have the court conclude that in view of this relationship the amounts of cash and cash items included in Western's average investment are too large.

The cash and cash items claimed by Western as a part of its investment in its Bell business were the amounts which it currently held. They averaged about $8,000,000 annually for the period 1916 to 1930 and were only 4 per cent. of Western's Bell sales and 6 per cent. of its average investment for the same period (Ex. D-56, R. V, 3696).

Western's cash and cash items are not only low when related to its sales and "average investment," but they are relatively small when compared with the needs of other large manufacturing companies. Western's cash requirements during the period 1925 to 1930 were proportionately one-third of the average cash requirements of the eighty-eight companies with which its earnings were compared. Western's Comptroller testified that he knew of no manufacturing company which was able to get along with relatively as small a cash balance as Western's (R. II, 1341).

Western's Operating Expenses Do Not Include Any Improper Items.

Defendants contend that the profits of Western have been understated and should be readjusted by adding to earnings certain sums on account of the following items (or that a redistribution of such sums should be made among the years under consideration):

(1) Pension Fund Accruals.

Defendants claim that Western improperly deducted $7,275,000 from current income for the years 1925, 1926 and 1927 on account of excess pension fund accruals in those years to make up under-accruals for the years prior to 1928.* The testimony shows that the only over-accruals of Western for pension fund purposes were in the years 1925, 1926

* An "over-accrual" is where there is charged to operating expenses for a given year an amount in excess of the required contribution for that year figured by actuarial computations on the basis of building up on a regular schedule over a period of years the amounts required to meet the company's ultimate obligations under its pension plan. An "under-accrual" is where an insufficient amount is charged to operating expenses in a given year on the same basis (R. II, 1069).

and 1927, and that they amounted to approximately $5,500,000 and not to $7,275,000. There were under-accruals in 1923 and 1924 aggregating nearly $4,000,000, and in the years 1928 to 1931 amounting to approximately $2,500,000. In the period 1923 to 1931, Western under-accrued for pension fund purposes by the sum of $742,000. In the years prior to 1923 the under-accruals were very large. As of December 31, 1931, Western's reserve for pension fund purposes was $34,990,000, whereas the actuarial requirement under its plan was over $59,000,000 (Exhibit A-193, R. IV, 2977; R. II, 1069; R. I, 800-818).

Western, in making proof of its pension fund requirements, introduced exhibits based upon actuarial computations made by Western employees which showed that Western had over-accrued for pension fund purposes in certain years and had under-accrued in other years. Evidence on this subject offered by Western's Comptroller was excluded on defendants' objection that the witness was not an actuary. Thereupon Western for the first time employed an actuary to make detailed and specific computations of the amounts required to be set up under Western's pension fund plan for the period 1916 to 1931. The actuary employed was Dr. Arthur A. Hunter, Vice President and Chief Actuary of the New York Life Insurance Company, who had been president of the leading American actuarial societies and the author of tables which are actuarial standards in many states. He is undoubtedly one of the most eminent actuaries in the world. At the time he testified, he did not know what amounts had been accrued by Western for pension fund purposes, but he was familiar with Western's plan and the scope and nature of its obligations thereunder. Western's pension accrual dur-

ing the period 1923 to 1931 have been less than the requirements for those years, as shown by Dr. Hunter's testimony (Exhibit A-193, R. IV, 2977; R. II, 1069; R. I, 800-818).

There is no reason for spreading these accruals differently over the years involved in the period. But if defendants' point were conceded and a redistribution were made in accordance with Dr. Hunter's testimony, the result on Western's earnings would be wholly negligible.

(2) Depreciation on Machinery, 1928.

In 1928, Western increased its depreciation rate on machinery from 7½ to 10 per cent. and charged $2,000,000 to expenses in that year for the purpose of making the 10 per cent. rate retroactive to 1924. Defendants do not challenge the 10 per cent. rate for 1928 and subsequent years but do claim that $1,831,000, being the portion of the $2,000,000 attributable to the Bell business, should be disallowed as an operating expense. The only reason assigned for this claim is that "the 7½ per cent. rate was in conformity with the general practice of manufacturing companies as shown in the case of the eighty-eight companies which the District Court used as a basis of comparison in respect to the reasonableness of Western's earnings" (Defendants' Brief, p. 313).

The change in Western's depreciation rate for machinery was based on a study made by its engineers and was in accordance with its experience and in line with the practices laid down in "Standard Accounting and Cost System for the Electrical Manufacturing Industry" (adopted by that industry) which recommends depreciation rates of from 7½ to 12½ per cent. for machinery (R. I, 358-9, Exhibit A-261; R. V, 3139-40). The defendants do not even claim

that this rate on depreciation for machinery was not justified by Western's experience.

However, the claim that the rate so established was not in conformity with the experience of the eighty-eight companies above referred to is not sustained by the record. There are a number of these companies which make no statement in their published reports with respect to their depreciation policy. The rates charged by the other companies on machinery naturally vary with the needs of their respective businesses. Twenty-one of these companies have rates on machinery less than Western, fourteen have the same rate and three have higher rates (R. I, 563). It is certainly not true, as claimed by the defendants, that the 7½ per cent. rate is in conformity with the general depreciation practice of these eighty-eight companies.

(3) Depreciation on Tools, Furniture and Fixtures.

Defendants claim that Western improperly charged as an operating expense in the years 1924 to 1929 $4,100,000 for depreciation on small tools, furniture and fixtures. This operating expense is attacked because Western's depreciation rates in this respect are in excess of those allowed by the Federal Government for income tax purposes. Western has maintained a reserve of approximately 100 per cent. on its small tools, furniture and fixtures. This is sound and conservative accounting and is a well recognized practice in manufacturing industry. The individual items in these accounts are small, are scattered throughout all the plants and shops, and have relatively short life. During the years 1924-1929 small tools, furniture and fixtures were added at the rate of about 17 per cent. a year. 100 per cent. depreciation was charged each year for the

additions made in that year. The dollar effect of this practice, therefore, is approximately the same, considered over a period of years as though in each year Western had charged depreciation expense at 17 per cent. of the property represented by the account in that year (R. V, 3137).

Western's depreciation rates are based upon Western's experience and the judgment of its engineers.

The amount which is allowed for depreciation for income tax purposes depends upon the interpretation of the provisions of the income tax law and the regulations of the Treasury Department adopted from time to time, and has no necessary relation to the proper annual amount of depreciation which should be charged as a portion of Western's expenses. There is no evidence which tends to disprove the correctness of Western's annual charges for depreciation.

(4) Extraordinary Reserve on Plant and Machinery for the Years 1924 to 1927, inclusive.*

In the years 1924 to 1927, Western set up special reserves aggregating $8,233,000 to cover the decline in cost of plant and machinery which it was estimated would come in the future. These amounts were charged to operating expenses and the defendants claim that $7,109,000 thereof, which is the part allocable to the Bell business of Western,

* Defendants' claims with respect to depreciation of machinery, tools, furniture and fixtures and extraordinary depreciation of plant, discussed under 2, 3 and 4, *supra*, must be limited in their application to Western's earnings on its average investment undepreciated, because there was credited to Western's depreciation reserve all charges to expense made on account of these items. Defendants cannot be heard to claim that an adjustment should be made on account of charges for these items and at the same time claim that the full amount of the depreciation reserve reflecting these charges should be deducted from Western's average investment.

cannot be correctly treated as an operating expense. Western's Comptroller and two independent accountants testified that if such amounts were eliminated from operating expenses, corresponding adjustments should be made to Western's investment. Accordingly, plaintiff introduced Ex. A-257 (R. V, 3133-36) on which it made the necessary adjustments in accordance with this testimony. One effect of this adjustment was a reduction in average investment for the period 1916 to 1932, thereby decreasing the base to which Western's earnings were related and correspondingly increasing the rate of such earnings. The other effect of the adjustment was to increase Western's rate of earnings by adding to its profits during the years 1924 to 1932 the sum of $3,147,000 on account of depreciation applicable to the excluded investment. The court, in finding 17, made this adjustment in accordance with plaintiff's testimony.

There will be no appreciable difference in the making of this adjustment whether plaintiff's or defendants' method be followed.

V.

Understatement of Operating Expenses Resulting from the Court's Reduction of Western Electric Company Prices in 1930, 1931 and 1932.

This is one of three items of operating expenses that are in controversy, the other two being the annual allowance for depreciation expense and the License Contract payment, which are taken up in the two succeeding sections.

The court reduced the operating expenses of the plaintiff $67,167 for the last two months of 1930, $332,470 for 1931 and an equal amount for 1932, by deducting 10 per cent. from the prices paid by plaintiff to the Western Electric Company during the times referred to, on purchases attributable to maintenance and other expense accounts. These reductions from plaintiff's necessary operating expenses were improperly made and resulted in overstating to the extent indicated the dollars available to plaintiff for a return on account of its intrastate operations in Chicago. The reasons why these reductions were improper are discussed at pages 36 to 44 of plaintiff's brief as appellant on cross appeal, in Cause No. 548.

VI.

Annual Depreciation Expense.

(Appellant's brief, "Depreciation Expense Charges" pages 378-448.)

This court in remanding the case instructed the District Court to determine "the amount which in fairness both to public and private interest should be allowed as an annual charge for depreciation," to receive such additional evidence as might be necessary for that purpose, and to make appropriate findings in that respect. The District Court in Finding 26 determined "the reasonable and proper amount to be allowed as the annual charge for depreciation applicable to the intrastate portion of plaintiff's said Chicago area property for each of the years 1923 to 1931, inclusive."

Both plaintiff and defendants complain of the amount found by the District Court in each year and seek a review of the finding and correction of the error in this court, defendants by this appeal and plaintiff by its cross-appeal, case No. 548.

Plaintiff in its brief as appellant on cross-appeal presents its argument upon this issue at pages 50 to 76, under the following heading:

> "The statutory court's allowance for the annual charge for depreciation is less in each year than the reasonable and proper amount shown by the evidence. Such deficiency in the allowance in the several years ranges from approximately $1,100,000 to $2,100,000."

The figures stated in that brief are reassembled in the following table, which shows for each year the amount found by the court, the amount charged on the books, the amount by which the court's allowance is less than the charge on the books, the amount recomputed by the company based on replacement value, and the amount by which the court's allowance is less than the amount thus recomputed and claimed by the company.

Year	Amount Found by Court	Amount Charged on Original Cost Basis per Books	Court's Allowance Less Than Charge per Books (3) — (2)	Amount Computed on Current Replacement Value New	Court's Allowance Less Than on Replacement Value New (5) — (2)
(1)	(2)	(3)	(4)	(5)	(6)
1923	$4,000,000	$4,221,515	$221,515	$5,662,154	$1,662,154
1924	4,250,000	4,469,890	219,890	6,382,159	2,132,159
1925	4,750,000	5,048,013	298,013	6,768,618	2,018,618
1926	5,400,000	5,767,372	367,372	7,217,128	1,817,128
1927	6,000,000	6,334,580	334,580	7,608,468	1,608,468
1928	6,650,000	7,009,065	359,065	7,981,108	1,331,108
1929	7,000,000	7,436,480	436,480	8,148,888	1,148,888
1930	7,200,000	7,864,772	664,772	8,581,118	1,381,118
1931	7,400,000	8,133,289	733,289	8,934,628	1,534,628

Plaintiff now desires to submit the argument there made as a part of its argument as appellee herein, and to incorporate the same herein by reference as if written here.

This enables us to proceed at once to a consideration of the points of defendants' argument as appellants herein.

Defendants state their position as follows, at the outset in the section of their brief above referred to:

> "Appellants' position is that: the 1920 Order on depreciation expense charges determined the amounts thereof to be deducted as proper operating expense in determining the net income under the existing rates and the 1923 Order on depreciation expense charges determined the amounts thereof in respect to the attacked rates. * * * " (Appellants' brief, page 379).

Following this statement there appears a "Summary Statement of Appellants' Contentions," which they offer in support of their position as above stated.

Their position upon this appeal, as thus stated, is the same as that taken by them upon the former appeal to this court, although the form of words used is not quite the same. In their brief as appellants in this court upon that appeal, their argument under the heading "Depreciation Expense" appears at pages 337-40 (Brief for Appellants, *Smith* v. *Illinois Bell Telephone Company,* October Term, 1929, No. 845). We refer the court to that entire discussion. Their statement of their position, heading the argument, and of the two contentions made in support of it are copied from their brief, as follows:

> "The operating charge set up by the Chicago Company to cover the expense of depreciation for 1923 was $1,835,974 in excess of the allowance prescribed by the Order of August 16, 1923 (R. I, 194, 244), which Order it has attacked as confiscatory. This operating charge was also $1,636,556 in excess of the allowance prescribed by the Order of December 20, 1920 (R. I, 251; R. IV, 1300), which Order prescribed the rates in force in 1923 under the temporary injunction issued in the instant case and still in force (R. I, 189). The Chicago Company has never appealed from the Order of December 20, 1920" (Appellants' brief on former appeal, page 337).
>
> "The City contends:
>
> "I. Not having appealed or assigned error to the failure by the Statutory Court to pass on the propriety or impropriety of the Commission's finding of fact covering the allowance for depreciation, the Chicago Company is foreclosed from attacking such finding before this Court.

> "II. If the finding of the Order of August 16, 1923, covering the allowance for depreciation is void, then only the allowance prescribed by the Order of December 20, 1920, can be legally included as an operating charge" (Appellants' brief on former appeal, page 338).

This court held against this position and rejected these contentions by its decision in that case, by remanding the case to the District Court with the instructions first above referred to.

The law of the case was thereby settled, and the same position is not now open to the defendants upon the present appeal.

While this disposes of their present position adversely to them, it is not entirely clear that it also disposes of all of the points of the argument they now make. We are mindful of the fact that the *issue* with respect to this item of annual expense must be settled by this court, and that it is not settled merely by rejecting the defendants' position with respect to it. We think this makes it incumbent upon us to give further consideration to certain of the points of their present argument.

Specific Answers to Defendants' Contentions.

1. Defendants first contend that the District Court erred in disregarding the "Commission's 1920 Order on depreciation expense charges as a valid legislative act" (Appellants' brief, page 379). In support of this they urge in substance that the state statute authorized the commission to regulate the depreciation charges, that on the present pleadings and record there is no ground "to hold void the 1920 Order on depreciation expense charges," and

that the District Court has substituted itself for the Illinois Commission as the administrative tribunal (Appellants' brief, Summary Statement of Appellants' Contentions, I, A to D, and II, pages 379-80).

The foregoing points of their argument are foreclosed against the defendants by the law of the case as settled upon the former appeal. While that is decisive of the matter, we nevertheless call the court's attention to our discussion of the commission's orders in our brief as appellant on cross-appeal herein, at pages 65 to 73, where our argument is directed to the District Court's statement in its opinion that it had given consideration to those orders, among other matters, in reaching its finding of fact upon this issue. It is entirely clear that this contention of the defendants is without merit.

2. The defendants' next contention, as stated by them, is that "the District Court could not make a valid finding on depreciation expense charges on the basis of the recorded depreciation expense charges." In support of this (point III) they advance sub-points A to E, inclusive (Appellants' brief, pages 380-81; 395-432). Their several arguments under this head are all directed to one point, and we will deal with them together.

The burden of their complaint here is that the use of plaintiff's method results in "annual advance contributions by its telephone users, computed on the straight line method, for anticipated depreciation on contemplated future additions to buildings and central office equipment" (Appellants' brief, pp. 395-6).

Defendants *assume* this result. The evidence is clear, definite and uncontradicted that no such result has been

produced, when all the classes of depreciable property are considered, page 144, *infra*.

The defendants here challenge the method by which plaintiff determines the annual depreciation expense rate applicable to two large classes of the plant, namely (1) buildings and (2) central office equipment.

In technical parlance this controversy between the parties is entitled "*group method* vs. *unit method*." The company uses the group method for determining the service lives of all classes of depreciable plant (R. II, 1106-7; 1114-15) and the defendants here oppose to it and advocate the unit method, but only for the two classes above referred to. As to all other classes of plant they insist upon adherence to the method the company uses. Both of these methods were considered by the Interstate Commerce Commission in the telephone depreciation case, and the commission upheld the group method (Depreciation Charges, 177 I. C. C. 351, at page 441, under the heading "Unit Basis *v.* Group Basis of Depreciation Accounting"; see also I. C. C. official stenographer's minutes of testimony of Mr. Woodford, on direct examination, pp. 678-684, 701; on cross-examination, 1043-1048).*

The characteristic of telephone buildings and central office equipment which differentiates them from all the rest of the telephone plant is that, in general, each building and each central office involves an initial investment which is added to from time to time, and that the entire building or the entire office is finally retired from service as a whole (Plaintiff's Exhibit A-128, R. IV, 2874-5).

* Mr. Woodford, of the engineering staff of the American Company, was the witness on this subject, representing all Bell System companies, in the hearings before the Interstate Commerce Commission in the telephone depreciation case (R. II, 1203).

The result is that when the original structure and all subsequent additions are taken as a "group," the "average life" is much less than the over-all life of the structure from the initial installation to retirement. This average life is taken as the basis for the depreciation rate under the group method employed by the company and the same depreciation rate is used uniformly throughout the life of the building or central office.[1] Thus the depreciation charge per dollar of investment currently employed is the same for each of the years (R. II, 1183).

On the other hand, if the original building or switchboard and each subsequent addition are considered as separate "units," as defendants propose, then there is no averaging. The life of the initial structure (neglecting certain minor interim retirements) is the number of years from the date of establishing the office until its final retirement and the individual lives of the several successive additions are each progressively shorter. The result is that the depreciation rate is low at the beginning of the life of the structure and rises progressively to the date of retirement.

In the case of plant classes *other than* buildings and central office equipment, the unit method results in a composite rate as to all units involved which is relatively high at first but grows less and less as fewer units remain in service. Some units among any considerable number originally installed together at a given time will last longer than others. Units of shortest life take individually the highest depreciation rate; those lasting longer take a lesser rate.

[1] We are discussing the principle. Of course, the matter is being continuously studied and the rates are continuously revised if and as indicated by the results of those studies (R. II, 1388, and much other testimony).

The composite effect is to decrease the depreciation rate progressively as the shorter lived units are increasingly eliminated from the calculations (R. II, 1183-4).

Now the company can apply either the group method or the unit method to every class of plant in both categories. It has the data available to enable it to do that. Mathematically either method is sound. Practically the group method is unquestionably to be preferred, as the Interstate Commerce Commission concluded it should be. But a combination of the two methods is indefensible, and this is what the defendants are proposing in their brief.

The mathematics of the group method as applied to buildings and central office equipment may be illustrated by the example of the Kedzie office, one of plaintiff's manual central offices in service during this period. The actual life history of this office is shown on page 5 of plaintiff's Exhibit A-128 (R. IV, 2864-65). This office was installed in 1906 at an initial cost of $69,573. The additions to the office in amount of cost in every year since 1906 to the end of 1929 and the estimated annual additions to 1936 are shown in the exhibit, as are likewise the dollars of interim retirements in every year, incident to making the additions. At the end of 1929 the investment at book figures had grown to $1,200,000 and will be $1,500,000 at the time of retirement in 1936 (R. IV, 2865). It is unnecessary to state the contents of the exhibit further.[1]

The exhibit shows how the group method of determining the average service life of an office in order to derive the

[1] In the official print of the Record the exhibit takes two pages, 2864 and 2865, which have been separated by two pages intervening. The historical data, that is to the end of 1929, appear on page 2864, and the detailed forecast to date of retirement in 1936 appears on page 2865.

correct annual depreciation rate works in practice. Mr. Turner compares the application to the Kedzie office of the group method used by the company with the results which would be obtained by the use of the unit method. His testimony shows that the company's depreciation rate for the office would be a uniform rate of 7.9 per cent. to be applied to the actual investment standing on the books each year throughout the life of the office. The use of the unit method on the other hand would result in starting off with a rate of 3.3 per cent. applicable to approximately $70,000, and the rate would increase year by year until at the end the composite rate applicable to the investment then amounting to $1,500,000 would be 16.7 per cent. (R. II, 1131-6).

It will be observed that both plaintiff and defendants would rely from the beginning upon the company's plans and the engineering forecast for that office. Defendants insist upon having the benefit, in the resulting low depreciation rate during the early years, of the extended life based on the planned additions to the office. The element of prophecy is the same under both defendants' and plaintiff's methods. That is inherent in any system of depreciation accounting.

While each method will accrue the correct amount, as stated, there is this difference between them: the company's method will accrue a larger percentage of the total investment during the early years, in the example, and an equivalent lesser amount during the later years, so that on the whole, *with respect to a single office*, the company's method gives it that advantage over the defendants' method. This is the defendants' point.

There were more than thirty-five central offices in service in Chicago, both dial and manual, in 1931. The earliest

date of the initial installation of any of these offices was 1899 (Plaintiff's Exhibit A-128, R. IV, 2864a). During the period 1923 to 1931 fifteen new central offices were installed at a cost of approximately $22,000,000 and eight offices were retired. The *additions to existing offices* during the period aggregated a cost of approximately $30,000,000 (see Appellants' brief, page 431).

These statistics show the offices initially established from time to time from the year 1899; the existing offices during this period were of all ages. They also show new offices installed throughout the period of the case, and very large additions to offices of all ages and thus give point to the fact, established by the testimony, that the relative amount of depreciation expense chargeable under the two methods during any period of the history of a large exchange area like Chicago *depends upon the age distribution of the initial offices and the subsequent additions at the time of the inquiry.*

Plaintiff has been using the group method above described for a long time; at least, the record shows, since a date earlier than 1923 (R. II, 1106-7; 1114-15). The Interstate Commerce Commission in the telephone depreciation case has only recently thoroughly canvassed the problem and affirmed the practice (Depreciation Charges of Telephone Companies, 177 I. C. C. 351, at page 441). The defendant commission has been fully conversant with the company's depreciation practices and has never objected to this method or criticized it. *The commission does not now criticize it;* no witness from the Commission's staff gave any testimony on the subject; the only objection comes from the City's witness Hill (of the firm of J. G. Wray and Company), and he would not commit himself (R. II; 1761).

Comparative Results Under the Two Methods.

In these circumstances this attack upon the method at the trial was unexpected.[1]

Plaintiff thereupon caused an investigation to be made which would show what the depreciation rates and charges would have been in each year of the case if the unit method had been used as compared with those under the group method used by the plaintiff. The results of that work are in evidence here as Defendants' Exhibit X-436 (R. VIII, pages 4949-54). Page 1 of the exhibit is a summary. It shows that in the years 1923, 1924 and 1925 the defendants' method would have resulted in somewhat lesser charges for depreciation expense and in the succeeding years somewhat greater charges. *For the total period 1923 to 1931, inclusive, the charges under the defendants' method for all of plaintiff's depreciable property would have exceeded those of the plaintiff under its method by the sum of $823,000.* The amounts by years are as follows (R. II, 1388):

1923	—$146,000	1926	+$ 26,000	1929	+$353,000
1924	— 125,000	1927	+ 195,000	1930	+ 107,000
1925	— 61,000	1928	+ 383,000	1931	+ 91,000

This testimony is uncontradicted and is entitled to full credit. We think it disposes of the matter. The issue is not a question of methods, as such, but of the amount of

[1] All of plaintiff's exhibits, together with all work papers upon this subject, were delivered to the defendants in August, 1931, 8 months before the trial (R. I, 798). They showed clearly and completely exactly what the plaintiff had been doing in this respect, as well as in all other matters pertaining to its depreciation practices, procedures and rates, and what plaintiff's evidence would be, so that the defendants could not be taken by surprise.

the annual charge for this item in each year of the case.* *The controversy over methods is rendered moot by this evidence.*

Defendants' counsel criticize this unit study in three respects, which we answer below.

Salvage of Buildings and Dial Central Office Equipment.

Defendants claim that the results of the study must be incorrect because Mr. Turner reduced his salvage allowances for buildings and for dial central office equipment (Appellants' Brief, pp. 426-429). The reason for these reductions was clearly explained by Mr. Turner on cross-examination (R. II, pp. 1431-2). In estimating the salvage on the group basis he had found higher salvage by weight-

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* Referring to other questions of like character, this court has said:

"* * * The enquiry is essentially one of fact and of discretion in technical matters; and uniformity can be secured only if its determination is left to the Commission. Moreover, that determination is reached ordinarily upon voluminous and conflicting evidence, for the adequate appreciation of which acquaintance with many intricate facts of transportation is indispensable; and such acquaintance is commonly to be found only in a body of experts. * * *"

Great Northern Railway Company v. *Merchants Elevator Company*, 259 U. S. 285, 291.

"* * * The inquiry would necessarily relate to technical and intricate matters of fact, and the solution of the question would demand the exercise of sound administrative discretion. The accomplishment of the purpose of Congress could not be had without the comprehensive study of an expert body continuously employed in administrative supervision. Only through the action of such a body could there be secured the uniformity of ruling upon which appropriate protection from unreasonable exactions and unjust discriminations must depend. * * *"

Board of Railroad Commissioners of North Dakota v. *Great Northern Railway Company*, 281 U. S. 412, 421.

ing the effect of future additions, as that method does. Now in applying the unit basis, which disregards future additions, Mr. Turner inevitably will get lower salvage. The method compels it. Since he was thus eliminating the future additions, he was forced to leave out of consideration the parts which, upon retirement of the complete structures, will be the newest parts having the highest salvage values. Consequently, the remainder, relating only to existing parts, must necessarily have lower average salvage values due to (a) the greater age of the portions which survive to final retirement and (b) the removal loss of portions dismantled prior thereto in connection with the making of additions.

The quotation from Mr. Turner's testimony referred to by defendants at the top of page 427 of their brief:

> "We did not attempt to visualize any conditions that might exist in 1974 with reference to a particular neighborhood,"

has nothing to do with the point which defendants are here seeking to make. They are criticizing Mr. Turner's unit study as against the group study, but an estimate of future salvage is required in any event. It is no more necessary to particularize as to prospective conditions in various neighborhoods under one type of study than it is under the other.

Respecting salvage on dial equipment they attempt to show that on the group basis the percentage should be higher than on manual equipment, since manual equipment is now to some extent in process of supersession by dial equipment (Appellants' Brief, p. 429). Mr. Turner's testimony shows that salvage for dial equipment will be lower

because the life of such equipment is much longer than the life of manual equipment (R. I, 763).

When Mr. Turner came to the unit study of dial equipment, his reason for further reducing the salvage was, as stated above, that he was dealing only with the then existing parts of equipment which would be the oldest when retired and hence would produce less salvage than the average salvage which he used in conjunction with his life on the group basis.

Life of Dial Buildings.

Defendants imply that Mr. Turner changed his view of the life of dial buildings in his "restudy" (Appellants' Brief, p. 427). This is incorrect—there was no "restudy." Mr. Turner found an average life of 35 years on the group basis (including additions) and a life of 40 years for the existing portions on the unit basis (Defendants' Exhibit X-436, R. VIII, 4950).

Other Classes of Plant.

Defendants refer to the fact that Mr. Turner had no working papers to support his comparison of depreciation expense on the group and unit bases for four classes of plant. (Appellants' Brief, p. 429). The record shows that his determination of the greater expense under the unit method as compared with the group method for classes of property other than buildings and central office equipment was developed through an analysis of the two methods applied to underground cable (R. II, p. 1427). This was a correct procedure.

Defendants then imply (Appellants' Brief, p. 430), that there is some question concerning the increase for under-

ground cable, alleging that the charges on the group basis for this class of property "were predicated on studies based in part on incomplete data of the older records and resulted in an overaccrual of from 9 per cent. to 15 per cent. (R. II, 1717)." Defendants here are relying on the testimony of their witness Hill. We quote Mr. Hill's conclusion as he stated it (R. II, 1717):

> "The effect of using my method, as compared with Mr. Turner's, on the figures shown in Table 21, A-128, for exchange aerial cable, and in Table 24, A-128, for Main Subscribers' Underground Cable *might be on the order of* 9 to 15 per cent. in the direction of a longer average life *as nearly as I can tell* from the *approximate figures* which I have made in the form of Table X-154." (Emphasis ours.)

Table X-154 was described by Mr. Hill as follows:

> "This Table X-154 *does not pretend to give an accurate result* as regards average life. It merely illustrates the principle.
>
> In order to get an accurate result, one should take in column B, instead of a uniform rate of growth, *the actual gross additions* made each year, and of course this would not run back for 68 years." (Emphasis ours.)

Plaintiff submits that Mr. Hill has said absolutely nothing in the above upon which defendants can base their contention of error in plaintiff's methods. Testimony of that kind does not prove anything.

In conclusion on this point:

Either method, applied to all classes of plant, would produce the right result in the end. The group method

spreads charges more evenly, on averages. The unit method, applied to buildings and central offices involves lower charges in the earlier years and higher charges later. As applied to other classes of depreciable property, it involves higher charges in the earlier years and lower charges later. Clearly, it would distort the accounts and be unfair to do what defendants propose in their brief, namely, to substitute the unit method for buildings and central offices while retaining the group method for all other classes of plant. While we are confident that we are right in this position, we nevertheless call attention to the fact that the first six lines on page 1 of defendants' exhibit X-436 show that during the period 1923 to 1931 the application of the unit method to buildings and central office equipment alone would have reduced depreciation expense as charged on the company's books by $1,473,000. For the same period the statutory court reduced the company's charges for expense of depreciation as made on its books on the original cost basis by $3,635,000.

3. Defendants' next contention is stated by them in their brief, as follows:

> "IV. The District Court could not make a valid finding on depreciation expense charges on the basis of Appellee's showing of its recorded depreciation expense charges adjusted 'to make the amounts of such allowances correspond with the present value of the property at the time such amounts were set up on the books of the company.'" (Appellants' brief, pages 381, 433.)

In support of the above contention they advance five subpoints A, B, C, D and E (Appellants' brief, pages 381-382,

434-41). The most satisfactory way to answer this part of defendants' argument is, we think, to discuss each of the subpoints separately, since they are largely unrelated.

Subpoint A.

This point is stated in their brief, at page 381, and again at page 434, where it is discussed, as follows:

> "A. Appellee's financial program to provide annual advance contributions for anticipated depreciation on contemplated future additions to buildings and central office equipment precludes the possibility of using the reproduction value of property in service as a base for the computation of the amounts thereof."

It will be borne in mind that plaintiff's depreciation accounting is done on a book cost basis, as required by the defendant commission's accounting system, which is identical with that of the Interstate Commerce Commission, and that accordingly plaintiff from time to time determined the correct depreciation rate for each separate class of depreciable property (as classified by the commission) and applied this rate to the amounts standing on the books from month to month. Then in this case in compliance with the decision of this court in *United Railways* v. *West* plaintiff recomputed the amount of the depreciation expense for each year by applying the same depreciation rates to the replacement value new (reproduction cost new) of the several classes of depreciable property (see brief of plaintiff as appellant on cross-appeal, pages 52, 58, 59-60).

Defendants' contention here is that, with respect to buildings and central office equipment, this cannot be done; that depreciation rates developed by the group method to

apply to the book cost of buildings and central office equipment cannot be applied to their replacement value.

They contend that there is a mathematical error in what plaintiff has done. The importance of this contention depends upon the degree to which depreciation percentage rates refigured to satisfy the contention would differ from those which were developed by the company in the ordinary way and have been used in this case. This makes necessary a discussion of the mathematics involved, but it need not be intricate or abstruse.

The essential considerations can best be made clear by a few calculations from the figures of defendants' own example, put forward by them at pages 434-5 of their brief. It is obvious, we take it, that the particular assumption made does not conform to actual conditions, for no telephone company would take a building 40 years old and double the investment in it with the aim of prolonging its life for a further span of but ten years; such heavy expenditure would be uneconomical under the circumstances. However, this sort of extreme case magnifies the point at issue.

The assumed building (in the illustration used by defendants) at the time it must be retired from service will have cost $1,000,000 of which $500,000 will have been outstanding for 50 years and $500,000 for the ten years then last past. The average life is 30 years; the resulting annual rate 3.33 per cent. This is upon defendants' assumption of no salvage.

On the books, the accounting, being upon the basis of original cost, would proceed as follows:

	Depreciable Property	*Depreciation Rate*	*No. of Years*	*Amount*
1926-1966	$ 500,000	3.33⅓	40	$ 666,666
1966-1976	1,000,000	3.33	10	333,333
				$1,000,000

The amount provided equals the original cost, which is the aim of the accountant.

To develop defendants' contention, it is now necessary to assume that at some time after the first $500,000 was expended and before the second $500,000 was expended, there is a rate case in which it is determined that the replacement value of the portion of the building already constructed and in use is greater or less than $500,000. Defendants say, "Appellee would be unjustly enriched if the effect of the change were to increase the amount of the rate base and would be prejudiced if the effect were to reduce the amount of the rate base." This statement has practical significance only if the "enrichment" or the "prejudice" would be substantial and not negligible.

We proceed with the illustration upon the assumption that the replacement value is going to be higher than the original cost. Ten years after the expenditure of the $500,000, there is a rate proceeding in which it is found that the then replacement value of the building would be 20 per cent. higher or $600,000.*

This finding affects the required computations as follows:

	Depreciable Property	*Depreciation Rate*	*No. of Years*	*Amount.*
1926-1936	$ 500,000	3.33%	10	$ 166,666
1936-1966	600,000	3.33	30	600,000
1966-1976	1,100,000	3.33	10	366,666
				$1,133,333

* During the period of the present suit, the excess of the replacement value of the buildings and central office equipment of plaintiff in the Chicago area over the original cost thereof averaged 18.5%.

We assume that the accounting upon the books is not changed as a result of the enhanced value of the property, but the depreciation allowance must be greater and our illustration deals with this allowance.

It thus appears that whereas the "cost of worn out property at time of replacement" would be $1,100,000, the allowances to the company would amount to $1,133,333. There would be in the end an excess of $33,333 gradually accumulated over a period of 40 years, amounting to about 3 per cent. of the total correct allowance over the life of the building. However, although the loss to the Company is $1,100,000, we assume that it may be entitled to recover at the higher value only after the date when the replacement value rose to $600,000; or in other words, that of the $100,000 increase in replacement value, the company may not be entitled to recover 10/50ths, or $20,000, applicable to the prior years. The excess then becomes $53,333, instead of $33,333, and represents an overallowance of approximately 5 per cent. But this is not a practical case.

First, defendants "assume no salvage." The salvage on central office buildings in Chicago is 20 per cent. of their cost (Ex. A-125, R. IV, 2853).

Second, as already pointed out, defendants assume a very large building addition abnormally late in the life.

Had defendants assumed the second $500,000 outlay to be made midway in the life of the building—a reasonable assumption—and had they also assumed $200,000 salvage, the depreciation rate would be 2.13 per cent. and the total allowance to the company would be $885,333, towards a replacement loss of $880,000 ($1,100,000 minus $200,000 salvage, and minus also the $20,000 referred to above). This illus-

tration also assumes a rate case at the ten-year point and the same 20 per cent. advance in replacement value over original cost at that time. While on this basis there is a theoretical excess accrual of about six-tenths of one per cent., the fact is that the company would actually fail by $14,667 to cover its replacement loss of $900,000.

If we assume a rise of replacement value over original cost substantially higher than the 20 per cent. used in the foregoing calculations, this has little effect upon the result; for example, we calculate below in detail the results upon the basis of a 60 per cent. rise occurring ten years after the date the first portion of the building was constructed:

CALCULATION OF RATE—*Original Cost Basis:*

$$\begin{aligned} \$\ 500{,}000 \text{ for } 25 \text{ Yrs.} &= 12{,}500{,}000 \text{ dollar-years} \\ 1{,}000{,}000 \text{ for } 25 \text{ Yrs.} &= 25{,}000{,}000 \quad " \quad " \\ &\overline{37{,}500{,}000} \quad " \quad " \end{aligned}$$

$$\frac{37{,}500{,}000}{1{,}000{,}000} = 37.5 \text{ Yrs. average life}$$

$$\frac{100\% \text{ minus } 20\% \text{ salvage}}{37.5 \text{ Yrs.}} = 2.1333\% \text{ rate}$$

ACCRUALS—*Replacement Value Basis:*

	Depreciable Property	*Depreciation Rate*	*No. of Years*	*Amount*
1926 to 1936	$ 500,000	2.13%	10	$ 106,666
1936 to 1951	800,000	2.13	15	256,000
1951 to 1976	1,300,000	2.13	25	693,333
				$1,056,000

The loss to the company is $1,300,000, less $200,000 salvage, or $1,100,000. Of the $300,000 difference between the replacement value and the cost of the building, 10/50ths, or $60,000, is, we assume, to be borne by the Company. The allowable depreciation accrual thus is $1,040,000. This

compares with an accrual which would be produced by the depreciation rates used of $1,056,000.

While on this basis there is a theoretical excess of $16,000, the fact is that the company would actually fail to recover its replacement loss by $44,000.

The matter is of no practical importance. We are dealing with a theoretical error which cannot exceed a minute amount—an error which as defendants admit may from time to time run either way and so may either "enrich" or "prejudice" the company.

The maxim, "*De minimis non curat lex*," applies.

Subpoint B.

Defendants say, at page 381 of their brief:

> "B. The investors in Bell Telephone securities 'are not primarily interested in property, as such, but are interested in safeguarding the money invested in the property which so far as it will some day be lost in operations, is, therefore, what should be covered by the depreciation provision.'"

The point is argued in their brief at pages 436-38.

It is not necessary for us to discuss this. The argument is obviously contrary to law.

Subpoint C.

They say at page 381:

> "C. The present record precludes the possibility of reaching the same conclusion of fact as that to which this Court attached legal consequences in the *United Railways* Case (280 U. S. 234), to wit: the conclusion of fact that the cost of retired prop-

> erty at the time of replacement 'is for all practical purposes present value.' "

This is discussed by them at pages 439-40.

The answer is that this court announced a principle in the case of *United Railways* v. *West*, and that this principle is plainly applicable to the facts of the instant case. In so far as defendants here rely upon the use of the "group method" of determining depreciation rates for buildings and central offices, we have already answered the argument.

Subpoint D.

Defendants state this point as follows, at pages 381-382 of their brief:

> "D. The base which Appellee used in its depreciation expense computations was not the 'present value' of the property which this Court in the *United Railways* case held was the proper base for depreciation expense computations in respect to the property covered thereby."

This point they argue on page 440.

This argument has already been answered in preceding sections of this brief.

Subpoint E.

Subpoint E is stated by defendants at page 382 and argued on page 441 of their brief. They say:

> "E. Appellee's position before the District Court in 1932 repudiates the position which it took in the 1929 hearings in this case, in the regular course of its business in relation to its investors, and

before the Interstate Commerce Commission since the decision in the *United Railways* case."

Their argument is, in substance, that plaintiff will not be heard to claim annual depreciation expense charges on the basis of replacement value for the reason that it has kept its books with respect to this item upon the basis of the cost of the property as shown by the books.

The answer is perhaps twofold: First, the books are kept in the way they are because the prescribed accounting system so provides; and second, the issue here is not a question of bookkeeping but of constitutional rights.

4. The next main contention of the defendants reads as follows:

> "V. The District Court could not make a valid finding on depreciation expense charges on the basis of the experience of other Associated Companies in respect to depreciation expense charges as disclosed in the record."

This is stated on page 382 of appellants' brief in the summary statement of the argument, and is restated and argued at pages 442-47.

Their point here is that the District Court, as stated in its opinion, took into consideration in making its finding on this issue the experience of other Bell System operating companies, and that it was error for the District Court to do this.

For answer we refer to plaintiff's brief as appellant on cross-appeal, "Comparison with all other Bell System Companies," pages 62-65. The point is without merit.

5. Defendants' further contentions which are numbered VI and VII, stated in their brief at page 382 and argued at pages 447 and 448, do not call for any comment.

VII.

License Contract Services and Payments.

(Appellants' Brief, "License Contract Services and Payments," pages 81-232).

Introduction (pp. 158-166, *infra*).

Allocation of American Company's Development Expense (p. 166, *infra*).

Allocation of License Contract Costs Between Plaintiff and Others (p. 188, *infra*).

Miscellaneous Criticisms by Defendants (pp. 193-246, *infra*).

The License Contract is an agreement which was made between the American Company and each of the operating companies in the Bell System. The contracts here in question were executed in 1919 and 1930, respectively, but the contract relationship in the same general form goes back to 1881. The License Contract grants to the Licensee Companies licenses under the patents of the American and Western Companies, guarantees the companies against losses for patent infringement, and requires the American Company to furnish certain other services. Such services are referred to in the opinion of this court upon the previous appeal as follows:

> "the rental for the use of instruments and for engineering, financial and advisory services * * *" (Smith *v.* Illinois Bell Telephone Co., 282 U. S. 133, 153).

The License Contract payments were sustained upon the first trial of this action on the ground that the services

were necessary and important to plaintiff and that plaintiff could not obtain them on as favorable terms elsewhere (O.R. I, 189-191). There was no inquiry into the cost of such services to the American Company.

This court in the decision above referred to sent the case back for additional findings, including findings of the cost to the American Company of furnishing the License Contract services in each of the years 1923 to 1931, inclusive. Proof of these was furnished on the second trial, and the facts with respect thereto are as follows:

> The American Company was divided into 12 general departments. Each of those departments kept accurate records which showed every dollar spent and the purpose for which it was spent. Each of them rendered services to the Associate Companies of the kind and character required by the License Contract.
>
> Plaintiff took up and dealt with each of said 12 departments separately. It showed the total costs incurred by each department in each of the years in question and showed the various classes of work for which those costs were incurred. It eliminated therefrom any work, and the expense thereof, which was not within the terms of the License Contract. Then it pro rated the remaining expense to the beneficiaries thereof in proportion to the benefits received, thus allocating to plaintiff the fair share of the expenses of each department separately.

This work of allocation was done by the head of the particular department in question, who later testified thereto and was cross-examined thereon. These witnesses were men of the highest standing, many of them with world-wide reputations as engineers or scientists, and they had complete knowledge of the subjects concerning which they

testified. The work was done with great care and in great detail. It was introduced in evidence in the form of 70 exhibits and the testimony concerning the reasons for the treatment of each class of expense was given at length, the direct and cross examination covering more than 700 pages of the condensed record.

The court below accepted practically without exception the primary facts testified to by these witnesses, but differed radically with plaintiff's counsel as to which of the items should qualify as License Contract expense and should be included in developing the cost thereof. Thus, the court threw out completely all taxes and all losses incurred by the American Company in connection with temporary financing of, and holding funds available for, the Licensee Companies. The court below found these items of expense practically as claimed, but rejected them as License Contract expenses. Plaintiff assigned error and appealed from such action of the court, and these matters are discussed at pages 11-17 and 77-102 of plaintiff's brief as appellant, Case 548.

While plaintiff accepted practically all of the primary facts found, defendants have filed and argued thirty-seven assignments of error directed to the findings of the court with respect to License Contract costs. It would be hopeless to attempt to outline a discussion of all of the separate issues raised by them.

Defendants charge with respect to the above described allocations that they were vague and indefinite, and in support of that charge they quote from what they allege to be a statement of the Comptroller of the American Company on that subject, as follows:

> "This matter of separating expenses here, license contract expenses from other expenses, was quite a mystery and the department heads could not tell me very much" (R. II, 1175.)

The statement quoted did not refer to the allocations made by the witnesses in the case at bar, but to an attempted allocation of all 12 departments which the Comptroller himself had undertaken to make previous to this trial on his own general knowledge of the situation.*

There may be differences of opinion concerning allocations—there usually are; but there can be no criticism of any allocation made in this case on the ground that it was indefinite or mysterious in any way. This is perhaps best shown by the fact that the defendants have pointed out in more than a dozen places particular allocations to which they object, stating the class of work objected to and the exact amount of money involved and precisely how it was dealt with by plaintiff.

In the case at bar, the possibility of error in the allocations was greatly limited due to the fact that most of the expenses of the American Company were of License Contract character and most of the benefits thereof were restricted to the operating companies, which shared in those benefits approximately in proportion to their respective sizes.

In explanation of the foregoing it will be necessary to give a brief description of the American Company and its assets and activities.

Its assets are shown both graphically and in figures on plaintiff's Exhibit A-99 (R. IV, 2834-A), as of December 31st, 1929. The situation was similar throughout the period

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* See page 225, *infra*.

(1923-1932). Those assets consisted principally of holdings of common stock in twenty-one operating telephone companies in the United States and in the Bell Telephone Company of Canada, as follows:

Company	*Assets*	*Percentage Ownership of American Company*
New York	$755,773,547	100.00
Southwestern	325,862,842	99.99
Illinois	291,562,853	99.11
Pennsylvania	295,582,619	100.00
Southern	237,013,378	99.99
New Jersey	179,110,576	100.00
New England	290,964,099	61.94
Pacific System (4 Cos.)	423,344,169	85% of Common Stock. 78.10% of Preferred Stock.
Ohio	170,043,384	99.99
Michigan	170,475,303	99.99
Northwestern	121,973,596	100.00
Mountain States	89,493,621	72.82
Wisconsin	66,901,301	100.00
Indiana	45,864,680	99.99
District of Columbia	31,729,223	100.00
Baltimore City	47,804,416	100.00
Virginia	28,501,987	100.00
West Virginia	24,081,564	100.00
Diamond State	7,887,684	100.00
Southern New England	67,988,021	33.34
Cincinnati & Suburban	37,728,091	29.71
Canada	179,680,187	30.56

The above assets total $3,889,367,081.

In addition to the stock ownership in the above operating companies, the American Company owned the following:

Company	*Assets*	*Percentage Ownership of American Company*
Western Electric Co. (including its two wholly owned subsidiaries)	$312,959,519	98.34
Long Lines Dept.	364,278,115	100.00
195 & 205 Broadway Co.	26,931,481	83.6
Bell Tel. Securities Co.	19,286,328	100.00
Bell Laboratories	14,822,568	50% A. T. & T. Co. 50% W. E. Co.
Cash and Temporary Investments)	40,165,351	
Furniture and Other Property	1,402,052	
Receivables and Miscellaneous	775,775	

The twenty-one Associate Companies in the United States, together with the American Telephone & Telegraph Company, and the Western Electric Company, the Bell Laboratories, and Bell Securities Company, were generally known as the Bell System.

Each of the operating companies above listed was carrying on a general telephone business in the locality indicated by its name. The Long Lines Department of the American Company carried on a telephone business which was limited to interstate business and to calls between points not less than forty miles apart. That property was owned directly by the American Company and not through stock ownership. However, it was organized and treated precisely as each of the operating companies, having its own separate officers, bank accounts, financial department, law department, etc. It constituted in size, on any reason-

able basis, about 7 per cent. of the entire operating system. (O.R. III, 973; Ex. A-100, R. IV, 2835-37.) In the discussions hereafter, references are made to the entire operating group including the Bell of Canada as the 23 operating companies, except at points where it is necessary to distinguish between the Long Lines Department and the other operating telephone companies.

Such 23 operating companies represented total investments of over $4,200,000,000., and represented more than 90 per cent. of all of the assets of the Bell System.

The only other considerable asset (comparatively) was the Western Electric Company. This company was engaged almost exclusively in the manufacture of telephone apparatus and lead-covered cable and sold most of this product to the 23 operating companies. It made these sales at very low prices, and at prices which returned it a profit of less than five cents on each dollar of goods sold (See discussion Western Electric's prices, p. 92, *supra*).

The Bell Laboratories did laboratory work *at cost* for the American and Western Companies and for Electrical Research Products, a subsidiary of Western. It did nothing else (R. III, 2155).

The Bell Securities Company was engaged in selling securities, exclusively of the Bell System, and raising money for the extension of the various units thereof.

The American Company did not speculate or deal in securities or properties of any kind. It dealt with each of the companies constituting the Bell System (Plaintiff's Ex. A-99, R. V, 2834-A). *It had no other dealings,* except that it sold its securities to the public and to bankers and raised money which it used to finance other members of the system.

With the possible exception of the cost of the financing of the twenty-one Associate Companies in this country and the Western, all of the expenses incurred by the American Company were clearly included within the terms and obligations of the License Contract. (The License Contract is Plaintiff's Ex. 7, O.R. IV, 1196).

Moreover, if it should be possible to disregard the separate corporate entities of the parties with regard to the License Contract (as claimed by defendants) and hold that the American Company can make no profit from plaintiff, then it would make no difference whether the services rendered by the American Company were enumerated in the License Contract or not, so long as they were rendered to benefit and did benefit the operating companies.

Its activities were restricted almost entirely to obtaining money for and improving the efficiencies of the operating companies and Western Electric. Insofar as these activities assisted Western to produce its goods at a low cost, the benefit, or most of it, was passed on to the Associate Companies through the low prices charged to them.

The American Company did, of course, devote some time and attention to taking care of the securities held by it in the Associate Companies, but as these were not dealt in and none was ever sold, this work amounted to little more than providing safety deposit boxes. It also received large sums in dividends from the Associate Companies, which it banked and took care of, but these payments were made in a few very large sums and the expense connected therewith was small. All of the other assets of the American Company except those above named were comparatively negligible.

Thus, it was not possible that any substantial part of the reasonable expenses of the twelve departments of the

American Company (excluding taxes and other financing expenses disallowed by the court below) could possibly have had as their object and effect anything except the benefit of the operating companies through improving their efficiencies in some way or another.

There has been no criticism of the reasonableness of such expenditures nor of the efficiency of the American Company.

Allocation of American Company's Development Expense.

Points I, II, and III, pages 97 to 125 of defendants' brief, are so closely related that they can be considered together. They all involve the problem of determining the part of the development expense incurred by the American Company which should be allocated to the license contract service. Defendants contend that the allocations made by plaintiff and adopted by the statutory court operate to enrich the American Company unjustly because they do not either assign a part of such expenses to certain special commercial products manufactured by Western or give credit for certain royalties from such products (Point I), because they do not assign another part of such expenses to certain manufacturers licensed by Western (Point II), and because they do not either assign another part of such expenses to certain distributors who purchase Western's manufactures for resale or give credit for certain profits made by such distributors (Point III).[1] The contentions have no merit on the facts.

[1] The facts as to each of the companies under discussion, including ownership, contracts with other companies, nature and extent of business done are set forth in pp. 112-122, *supra*. This reference is made to avoid repetition.

The invention of the telephone and its application to public communication created a new art which has required extensive research and development. That work has been divided between the American Company and Western along the lines of the division of patent ownerships agreed upon between them in the contract of 1882 (R. III, 2166). Since the date of that contract the development work of the American Company and the patents owned by it have related to the fundamentals of voice transmission, and the development work done and the ownership of patents by Western have related to apparatus to be manufactured by it (R. I, 489; R. III, 2144-2147). Western has periodically assigned to the American Company United States patents it acquired on telephones, and the American Company has similarly assigned to Western patents it acquired on telephonic appliances (R. II, 1212, 1223-1224). In view of the confusing references in defendants' brief to Western and its customers and licensees it is important to keep in mind throughout this discussion that the development expenses under discussion are solely those of the American Company. The development expenses associated with Western's work have been dealt with earlier in this brief (p. 111). They were not included in the costs here dealt with and are not here involved. We are here concerned only with defendants' claim that plaintiff allocated too large a share of the American Company's development expenses to the Associate Companies.

The license contract (R. V, 3001) provides that "The licensor (American Company) will prosecute continuously fundamental work of research, investigation and experimentation in the development of the art and science of telephony." * * *

The uncontradicted testimony shows the development and research which the American Company has carried on

under this contractual provision. Its activities have been in fundamental research on voice transmission and have related almost entirely to matters connected with telephone apparatus and cable, as distinguished from special commercial products (p. 91, *supra*). Its development work was done by its Department of Development and Research (R. I, 614-615, 621-622).

In making proof, therefore, of the cost to the American Company of furnishing the license contract services, it was necessary to apportion the development expenses of the American Company between those related to furnishing the license contract services and those which were not so related.

The Department of Development and Research kept a complete and detailed record of each dollar spent. That record was made in the regular course of business and no question has been raised as to its accuracy (R. I, 619-620). The total expense of the Department is not in dispute.

The allocation of the share of these expenses attributable to the Chicago area of the plaintiff was made by Dr. Frank B. Jewett. For many years he had been chief engineer and later was Vice President in Charge of Manufacture and Engineering of Western Electric. For some years he has been Vice President of the American Company, in charge of its development activities and since 1925 he has also been President of Bell Telephone Laboratories. He has wide and intimate knowledge of the facts, based on experience in positions of responsibility with these companies during the period when the transactions here under discussion took place. He is a man of international reputation. His testimony showed that his computations had been made very carefully and conservatively (R. I, 611-690).

Dr. Jewett allocated the expenses of his department as follows:

He first eliminated certain minor expenses not properly charged to his department and thus arrived at the expenses which were exclusively related to the development of that art (Plaintiff's Ex. A-115, R. IV, 2845; I, 623-4). This is the amount to be allocated and it is not in dispute.

With full knowledge of the facts and in the light of broad experience Dr. Jewett reached the conclusion that the fair way to apportion the expenses of his department between license contract users and others was to apply the ratio between the sales of telephone apparatus and cable made by Western to Bell customers on the one hand, and to its non-Bell customers on the other. Plaintiff's Ex. A-117, R. IV, 2848, shows this allocation for each of the years in this case. He testified:

> "In my opinion, that method gives a fair share and no more than a fair share of the expenses of my department which are allocable to the Chicago area of the Illinois Bell Telephone Company in each of the years 1923 to 1931, inclusive." (R. I, 632).

Defendants' contentions now under discussion do not require elaborate discussion of the testimony or any substantial argument. We will first summarize the facts shown by the evidence which establish the broad fairness of Dr. Jewett's method insofar as defendants' three contentions are concerned and then deal with certain statements made by defendants which might, if not discussed, be confusing to the court. The summary follows:

> (1) All of the development work of the department was fundamental research on voice transmission. It concerned telephone apparatus and cable, but not special commercial products. (The American Company does not do development work on special commercial products.) (R. I, 630; III, 2147.)

(2) Some of the developments reach the Associated Companies directly—notably those arising from work done on protection of telephone lines and systems from lightning, from inductive interference due to operation of trolley lines and electric light and power lines, etc. (R. I, 628-632).

(3) The major part of the developments, however, find their application through products manufactured by Western (R. I, 629-632).

Western is licensed by the American Company to make and sell products embodying these developments (O.R. VI, 2069-2070; R. II, 1211-1223). Western's sales of telephone apparatus and cable to Bell customers are more than 90 per cent. of the total sales of its products (Plaintiff's Ex. A-116; R. IV, 2846-2847).

(4) The American Company has granted certain licenses under its patents in this country to companies outside the Bell system as follows:

(a) Cross licenses under existing and future patents exchanged with the General Electric Co., Westinghouse Co., and Radio Corporation of America, the licenses granted by the American Company being related to fields outside the telephone business, and the licenses received including that business (R. I, 651, 2.)

(b) Cross licenses exchanged with Automatic Electric Co. in 1916 and extended at various later times covering certain automatic telephone apparatus (R. II, 1217).

(c) Cross licenses with other manufacturers which are not in controversy (R. II, 1222, 1224).

Each of these cross licenses was advantageous to the operating companies. In addition to the licenses granted by the Bell companies under their patents, each of the cross licenses referred to, except (a) above,

involved a cash payment from the American Company or Western (R. II, 1217, 1224).

(5) Western has been licensed by the American Company to make and has sold special commercial products, all of which lie outside the field of apparatus and cable in which the American Company's development was done, but some of which embody inventions made in the course of that work. These sales are only 3½ per cent. of Western's total sales. The Bell system companies receive substantial benefits from development work on special commercial products. This development work is not done by or charged to the American Company or the Associated Companies in any way (R. I, 497-498).

(6) The American Company granted patent licenses in the telephone field in Canada to the Bell Telephone Company of Canada under the agreement of 1923 (prior to 1923 the contract of November 2, 1880, applied). The license covers the right to use, and also the right to have manufactured in Canada for use, by the Bell of Canada. Supplementing this and under the same date as said contract the American Company, Bell of Canada and Western made a contract with Northern Electric Company whereby manufacturing licenses were granted to the Northern by the Bell of Canada and whereby the parties agreed that the two Canadian companies should receive their several rights under inventions belonging to either the American Company or Western through Western (prior to 1925 International Western). Consideration for rights under the patents coming from the American Company was paid by the Bell of Canada in its license contract payment. Consideration for the rights received by Northern through Western, came through their agreement to continue an earlier contract dated in 1919 between the Bell of Canada, Western and Northern (Defendants' Exs. X-379, X-380, X-381, R. VIII, 4675-4689).

(7) On its patent side the 1882 contract above referred to between the American Company and Western dealt primarily with United States patents. In this country telephone patents acquired by either company were to go to the American Company. Patents on telephonic appliances were to go to Western. In addition, the contract contemplated, and the practice of the parties has always been (subject to certain limitations for Canada resulting from the 1923 contract referred to in (6) above), that Western should acquire rights in foreign countries to inventions resulting from the American Company's work (O.R. VI, 2068-2075).

Western therefore, while transferring its U. S. patents on telephones to the American Company, has not transferred to the American Company any foreign rights to the inventions covered by those patents. It retained those rights. It also acquired directly from the inventors the foreign rights on the inventions covered by the U. S. patents on telephones and telephonic appliances which the American Company acquired in its development work here. The American Company, therefore, has not owned foreign patents. Foreign patents on both telephones and telephonic appliances have been taken out by Western and any licenses under such patents have been granted by Western (R. II, 1213-1214).

We come now to the specific contentions made by defendants in Points I, II and III under discussion.

One-third of the Royalties Received by the American Company for Special Commercial Products Was Sufficient Credit to Allow as an Offset to the Expenses of the Department of Development and Research of the American Company and this was deducted by plaintiff.

(Answering defendants' Contention I, their brief as appellants, pages 97 to 106.)

Defendants show in the last column of the table on page 103 of their brief the royalties which they claim. These aggregate $5,226,141, or an average of approximately $600,000 a year for the nine years covered by the proof. Approximately 4 per cent. of the expenses of the Department of Development and Research were allocated to the intrastate business of Chicago area of plaintiff.* Therefore if defendants' claim were sustained the result would be to reduce the amount of the License Contract costs allocated to the Chicago area of plaintiff by 4 per cent. of the credit, or by an average of $24,000 a year.

Plaintiff, in order to avoid raising a doubtful issue, conceded the principle and had the amount of allowance evaluated by persons familiar with the matter and set up such amounts as deductions from the cost to the American Company of the License Contract services (Plaintiff's Ex. A-171, R. IV, 2962). This evaluation showed one-third of the total receipts as the proper credit (R. II, 1172).

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* The 4 per cent. is derived by comparing the total D. & R. expenses in column 1 with column 5 of plaintiff's Ex. A-117, R. IV, 2848, which gives about 4.7 per cent. for the Chicago area, interstate and intrastate combined. Making the adjustment for intrastate business will bring the percentage down to a little over 4 per cent. For intrastate adjustment percentages see the property separation in plaintiff's Exs. A-50, A-184, A-189, R. IV., 2734, 2968, 2973.

The court did not refer specifically to this item in its opinion or its findings, and defendants claim that no allowance was made therefor. This may be true, though the costs found by the court as allocable to the Chicago area of plaintiff in many years were more than $100,000 less than those claimed by plaintiff.

The above statement of a $24,000 annual credit claimed and an $8,000 annual credit admitted by plaintiff gives the court an idea of the magnitude of the controversy, but greatly overstates the practical effect thereof. More than three and a half millions of the five and a quarter millions of royalties were received in the years 1929, 1930 and 1931. (Plaintiff's Ex. A-171, R. IV, 2962.) In those years the court below found that the share of the License Contract expenditures allocable to the intrastate business of plaintiff's Chicago area exceeded by nearly $200,000 a year the License Contract payments made by plaintiff with respect to that area and business, but the court restricted the allowance for plaintiff's operating expenses to the amount paid.*

Thus, practically, all allowance claimed by plaintiff would operate in reduction of amounts which were not allowed by the court and would have no effect in reducing the amounts allowed by it with respect to License Contract services.

Defendants claim also that there will be large continuing royalties from these matters in the future and that some great allowance should be made *in the years 1923 to 1931* for such prospective future royalties in addition to the amounts actually collected in those years. Any such computation would be purely speculative. Clearly, future royalties should be disregarded. If any royalties are to be cred-

* See discussion, Plaintiff's brief as appellant, pages 80 and 81.

ited, the only practical course is to relate them to the years in which they are received. Any other course would require not only estimates for the future which cannot be definite, but also a spreading of royalties over all the years subsequent to that in which the particular invention or inventions producing the royalties were made. This would of course require allocation of parts of royalties received in any year, 1929, for example, over many prior years. It might exclude some royalties received during the years in issue and relate them back to prior years.

Plaintiff submits that the foregoing should dispose of this entire matter.

The allocation of the expenses of the Department of Development & Research was fair, *took account of all factors,* and allocated to the Chicago area of plaintiff no more than its fair share of such expenses on the basis of the share of the benefit thereof received.

(Answering Defendants' Contention II, p. 106.)

Defendants' contention that too large a share of the expense of the Department of Development & Research was allocated to the Associate Companies and too small a share to the sales of telephonic appliances and lead covered cables to others than the Associate Companies is without support.

Defendants' Claim.

Defendants claim that Dr. Jewett did not allocate any portion of the expenses of his department to the International Western Electric Company, International Standard Electric Company, Northern Electric Company, and Automatic Electric Company, all of which were licensees

of the Western Electric Company and all of which they say enjoyed to some extent the benefits of the work done by Dr. Jewett's department.

Defendants further claim that "a substantial portion of more than $20,000,000" should be credited over the period 1923 to 1931, because of the foregoing (Defendants' brief as appellants, pages 106 and 107).

Dr. Jewett's Allocation Included an Ample Allowance for All of the Matters Contended for by Defendants.

While, as above stated, Dr. Jewett did not state in detail all of the factors which had caused him to make an allowance of $2,046,400 as the share of the cost of his department which should be allocated to the non-licensee activities of the American Company, it is clear that he could not well have deducted so much had he not made allowance for the activities of the four companies in question (Col. 2 of Plaintiff's Ex. A-117, R. IV, 2848).

Dr. Jewett with respect to the work of his department stated as follows: "Viewing the work from the standpoint of the purposes for which it is done I think I can break it down into a few general classifications." He then stated six classifications (R. I, 621, 623). These six classes included as one class of work connected with the protection of the telephone wires against inductive interference from trolley wires, high tension circuits, lightning, electrolysis, etc. Work of this kind did not assist the Western Electric Company in any way and did not lead to any sales of Western Electric Company apparatus outside of the Bell System. Defendants themselves concede that the expenses of this work should be allocated 100 per cent. to the operating telephone companies (Defendants' brief as appellants,

pp. 88-90, Appendix 55). There were other of the six classes of work which did not lead to new manufactures by the American Company and, in fact, only one or at most two of said six classes did naturally so lead (R. I, 621-23).

Dr. Jewett was fully familiar with all of these matters claimed by defendants as offsets and credits, as he had been Vice President in Charge of Manufacturing, Engineering, etc. of the Western Electric Company at the time when the relations with the International Western Electric, the International Standard, the Northern Electric, and the Automatic Electric had been in effect (R. I, 611-614).

If Dr. Jewett had made his apportionment in the most meticulous way he would have pro rated the expenses of his department in the fourth and fifth general classes enumerated by him at pages 622-623 of Vol. I of the record, and above referred to, on the basis of the Western Electric Company's sales to the operating companies as compared to its sales to all others. Then he would have made a separate allowance for the benefits from the work of his department received by the International Western Electric and any others. Instead of doing this, Dr. Jewett applied his percentage deduction not to the expenditures of said fourth and fifth classes alone (which classes were the only ones that contributed to the new or changed manufactures by the Western Electric Company, R. I, 629), but applied his percentage to all six classes of the work done by his department (Plaintiff's Ex. A-117, R. IV, 2848). He testified that he did this because it was difficult to divide his expense accurately among the six classes and to pro rate those classes separately (R. I, 631). The method followed by him obviously resulted in a deduction for non-Bell business much larger than would have been justified if he had considered the business of the Western Electric Company

alone and had taken no account of that of the International Western Electric, Northern Electric Company and others.

Thus, on the state of the record it cannot be said that Dr. Jewett did not *intend* to make a fair allowance for any of the items in question which should have been allowed for.

Neither can it be said that Dr. Jewett *did not* make a full allowance for all of the items in question, unless it should appear affirmatively from the evidence that there *should be* allowance for these items and that they *should aggregate more than a million dollars.**

The evidence not only *fails to show* or even indicate the above, but, on the contrary, *shows affirmatively* that there should have been *no allowances* in two or three of the four cases, and only small allowances, if any, in the others.

Considering separately the four claims made by defendants "to a substantial portion of more than twenty million dollars."

Northern Electric Company.

The Northern Electric Company is a manufacturing company operating in the Dominion of Canada. The Western Electric Company owned a *minority* interest of 43 per cent. in its stock (R. I, 491). The Western Company sold substantial quantities of its manufactures to the Northern Company (R. I, 491-493). These sales were included in the non-Bell sales shown on Dr. Jewett's Exhibit A-117 and were directly allowed for. This is specifically admitted by defendants in their brief as appellants, page 112.

* One million dollars is the approximate difference between $2,046,400 which Dr. Jewett actually allocated to non-Bell business and the amount which he would have allocated had he confined his allowance to the non-Bell business transacted by the Western Company itself.

Northern occupies a position in Canada somewhat similar to that occupied by the Western Company in the United States. It supplies the requirements of the Bell of Canada as the Western Company supplies the requirements of the Bell Companies in the United States. In doing so, it has the right to use such inventions of the American Company as it considers advisable. It gets this right, however, not from the Western Company as alleged by defendants, but from the Bell Telephone Company of Canada, which company holds a License Contract agreement from the American Company made in 1923. This agreement gives to the Bell of Canada the right to authorize others to manufacture and the Bell of Canada has authorized Northern to manufacture under the inventions of the American Company, for which the Bell of Canada makes payments under its License Contract (R. VIII, 4684-4689).

The fact is, therefore, that Northern derives rights to Western's inventions under the 1 per cent. royalty contract referred to in defendants' brief, but derives its rights to American Company inventions through the Bell of Canada, which pays full consideration therefor under the 1923 license contract (R. VIII, 4675-4689). The Bell of Canada is not controlled by stock ownership by the American Company and neither is the Northern (Plaintiff's Ex. A-99, R. IV, 2834; R. I, 491).

Dr. Jewett in making his allocations *allocated to the Bell of Canada* its full share of the costs of his department on the same basis as he used for the Associate Companies in the United States (Plaintiff's Ex. A-117, Col. 3, R. IV, 2848).

The foregoing facts make clear that there is no basis for defendants' contention that something should be deducted from the development expenses on account of the

use of American Company inventions in the manufacturing business done by Northern.

The same facts make it clear that no part of the profits of Northern should be credited against development expense attributable to the License Contract.

To show the extent to which defendants have gone to make criticisms of the findings of the court and the testimony of Dr. Jewett, it may be proper to point out that the royalties claimed were at the rate of approximately $50,000 a year. Now, as the share of the expenses of the Department of Development & Research allocated to the Chicago area of the plaintiff was 4 per cent.; if defendants' claim had been well founded, the effect of the credit claimed would have been 4 per cent. of $50,000, or $2,000 annually.

Automatic Electric Company.

As to Automatic, the $4,000,000 payment for which credit is claimed by defendants at this point is the same $4,000,000 for which defendants claim credit with respect to its Bell business (Defendants' Brief as Appellants, p. 115 and p. 273). Obviously, the same item cannot be allowed for twice.

The conclusive answer to the claim both as a credit to Western and as a credit against License Contract expenditures is given at page 122, *supra*.

Further with respect to the interchange of licenses between the Automatic Company on the one hand and the American Company and Western on the other hand, the fact that $2,000,000 was paid to Automatic, an entirely independent concern, for its license as far back as 1916 (R. II, 1217), is proof of the value of the licenses obtained from it for the benefit of the Associate Companies.

International Western Electric Company.

Defendants claim three substantial offsets or credits against the expenses of the Department of Development & Research based on profits or dealings of the International Company. Defendants state their premises as follows:

> "The American Company received no compensation for the foreign rights to its inventions or reimbursement for any portion of the cost of developing its own inventions * * *. *Obviously* telephone communication equipment received the *same* benefit of the *same* inventions of the American Company, whether manufactured by Western for export, to which Dr. Jewett gave effect, or manufactured by the foreign factory of International Western * * *." (Italics ours.) (Brief, p. 108.)

To the plaintiff the *contrary* seems *obvious*. However, defendants' statement above is exactly contrary to the only evidence in the record on the subject (R. I, 494-7).

Here, again, the claim is a duplicate of that made by defendants for the same allowance in computing the development expenses of Western in determining its profits from its Bell business (Defendants' Brief as appellants, p. 109 *et seq.*)

The International Company was sold to an outsider in September, 1925, so that the relationship upon which defendants base their claims existed only two and one-half years of the nine years covered by this suit (R. I, 493).

As above shown in the section relating to Northern Electric Company, the share of any credit against the expenses of the Department of Development & Research which would apply to the Chicago area of plaintiff was 4 per cent. If the smallness of this percentage, together with the com-

parative smallness of the business of the International Company compared to that of Western is borne in mind, it will be seen that the maximum credits to the Chicago area of plaintiff would not exceed $10,000 for the years 1923, 1924 and 1925, and nothing thereafter.

Defendants seem to claim the above offset or allowance based on the amount of business done, and also the entire profits of the International Company. This would, of course, be a double allowance for the same thing. Defendants worked out their claim to profit by appearing to show a substantial return averaging 13 per cent. upon *capital* and *surplus* (defendants' brief as appellants, p. 109). They entirely omit reference to the fact that International was financed largely by advances from Western Company, and that the capital, surplus *and advances* together averaged approximately $20,000,000. International made no more than a fair manufacturing profit on the amount which Western had embarked in the enterprise, and the figures make it plain that there is no amount which could be regarded as profit from the use of American company inventions.

However, the complete answer to the claim for any allowance is given, *supra* at pages 119-120, where the same claim is discussed in connection with the Western Electric prices. It is there shown that the entire relationship was more than fair and advantageous to the Associated Companies.

International Standard.

On September 30, 1925, International Telephone and Telegraph Corporation paid to Western $29,306,534 in cash for the entire capital stock of International Western (R. VIII, 4563, 4890).

The company so purchased changed its name to International Standard, and made a patent and sales contract with Western. It undertook to pay to Western one-half of one per cent. upon its future sales other than resales of purchases from Western, such percentage payments to continue for a period of years (R. VIII, 4884). International Standard granted to the Bell System the right to use in the United States and Canada patents then owned and thereafter acquired by it.

Defendants argue that by reason of the above transaction there should be a large credit or offset against the actual expenses incurred by the Department of Development & Research. They suggest that the $6,255,095 by which the purchase price exceeded the book cost of the physical assets sold was all in effect payment for licenses under the patents of the American and Western Companies and should be offset against the expenses of the Department of Development & Research of that company *in the particular years covered by this suit.* There is nothing to sustain this argument and many things contradict it, as follows:

There is no proof that any part of cash payment of the International Standard was paid for the licenses of the American Company. On the contrary, the proof indicates that no substantial part of said $6,225,095 was paid for those patent rights. While the sales price to the Standard exceeded the cost of the physical assets of the International Western by $6,255,095, there is nothing to show that the Standard Company paid one dollar more than the value of these assets at the time when it acquired them. The Western Company embarked upon its European and Asiatic business in 1882. It attached business and built

up a good will for more than forty years before it sold out to the International Standard. It was doing an annual business of approximately $40,000,000 (see defendants' brief as appellants, page 108). It would be difficult to believe that the good will of such a business would not be worth at least $6,255,095.

Moreover, the assets sold in 1925 had been turned over to the International Company in 1918, a corporation wholly owned by the Western (R. VIII, 4523). Some of these assets had been owned by the Western for many years prior thereto, and as far back as 1884. It is not shown on what basis the property was turned over to the International Company, but if this basis were the value at the time there would undoubtedly have been a substantial increase in value between that time and 1925. The above facts, taken together with the fact that the wholly independent International Company made a specific agreement to pay a patent royalty on all its sales of telephone apparatus, whether patented or not negatives the idea that any part of the six million dollars in question was *an additional* payment over and above the royalty.

If the $6,255,095 in question is considered as having any relation whatever to patents or inventions, it would have to be spread over some period of time corresponding to the patents or rights so related to it. If all the $6,255,095 were to be credited, there is no basis in the record for saying whether it should be spread over the 15 years during which International Western's future contracts ran or over that period plus some time in the past.

In no event can 4 per cent. of the amount which could be attributed to any one year on any reasonable basis be more than nominal.

As above shown, there was no evidence that any part of this payment was for patent rights. Defendants' entire argument on this point is based on pure speculation.

The Basis Adopted by Dr. Jewett for Allocating a Portion of the Expenses of the Department of Development & Research to the Non-Bell Sales of Western Company Was More Than Fair.

(Replying to Defendants' Brief as Appellants, pp. 116-125.)

Defendants take their discussion of this subject back to 1879. Many of the statements made are most unfair, to say the least. They are entirely irrelevant, however, and plaintiff will start with those facts which have some relation to the matter in controversy.

From 1919 to 1931, inclusive, the Western Electric Company sold its product to the Bell Companies in this country, and referred to generally as "Bell customers," and to others referred to as "non-Bell customers." Defendants say:

> "Dr. Jewett allocated the entire Development and Research expense between the Bell System and non-Bell customers of the Western on the basis of their respective purchases of Western's telephonic appliances (including lead-covered cable). His declared purpose was to allocate to the non-Bell field its proper portion of such expense." (Defendants' Brief as Appellants, p. 120).

This statement is entirely correct. Defendants then say:

> "Dr. Jewett failed to give effect to the fact that the Bell sales figures used by him in all cases repre-

sented retail sales." (*Defendants' brief as appellants, p. 120.*)

If Dr. Jewett had given proper effect to the differences in price levels he would have allocated a smaller share, and not a greater share, of the expenditures of his Department to the non-Bell business. This follows from the fact that the so-called "*retail*" prices to the Associate Companies were at lower prices than the *wholesale* prices to others. The Western Company's "*retail sales*" to the Associate Companies averaged $264,431,000 (R. IV, 2816) a year for the period 1923 to 1931. Its "*retail sales*" to plaintiff averaged $16,875,000 (R. VIII, 4779) a year. In making its sales to the Associate Companies, Western had no selling expense, no credit risk, and was informed in advance concerning the expected requirements of the company. The profits of Western on its sales to the Associate Companies was limited to approximately five cents on the dollar. Because of all the foregoing, the prices at which Western sold to the Associate Companies was very low. Throughout the whole period Western has never sold at wholesale or otherwise at lower prices than it sells to the Associate Companies.

Of course, in allocating the expenses of his department the ideal basis would have been the basis of units sold, but this information was not available; so Dr. Jewett took the dollars received for the units sold, which was available. This was more than fair, because the units sold to non-Bell customers were sold at higher prices than to the Associate Companies.

The resale price to the public includes, of course, a large sales cost, credit risk, and additional handling, plus a return upon the money invested in the retail business.

None of these factors were present in the sales to the Associate Companies, and obviously, in determining the proportion of the total benefit of the work applicable to the non-Bell sales, it would be highly improper to use as the basis, resales to the public.

The foregoing, plaintiff believes, effectually disposes of defendants' whole argument on this point.

Here again, however, all of the factors hereinbefore discussed in connection with the Northern and International Companies are present and operate to reduce to an insignificant figure any allowance from retail sales, if such allowance were possible.

The sales through International Western and Northern Electric, referred to on page 125 of defendants' brief, have already been claimed by defendants and here they are making a second claim for the same thing.

The discussion *supra* at pages 112 to 122 is a complete answer to *both* claims.

Defendants show in a table at page 122 of their brief a comparison between the profits that Graybar made on the resale of Western's apparatus and the profits that it made on the resale of its purchases from others. This difference is striking and a conclusive support to the contentions of plaintiff and the findings of the court below that the Western sold to the Associate Companies far below the market, *because the sales to Graybar were never made at lower prices than the sales to the Associate Companies.*

The Allocation to Plaintiff of Its Share of the License Contract Expense Incurred for the Benefit of All Operating Companies Was Carefully and Fairly Made.

(Answering Defendants' Brief as Appellant, pages 126-167.)

In the preceding section of this brief we have dealt with the determination of the total License Contract expenses of the American Company. When these had been determined it was then necessary to pro rate such expenses among the 23 companies who received the benefit thereof.

Plaintiff and 21 others of the 23 companies were all doing substantially the same kind of business. Obviously, a pro-rate among these 22 companies on the basis of relative size was proper, and we do not understand that defendants take any exception to this.

However, one of the operating companies, namely, the Long Lines, carried on a business which was somewhat different from that of the other 22 (R. I, 552, 634; III, 2203). Defendants complain that plaintiff's witnesses allocated to the other operating companies including plaintiff and the Bell of Canada $20,000,000 of the expense of the Department of Development & Research which should have been allocated to the Long Lines, and that thereby too large a share of the License Contract expenses was allocated to plaintiff. The allocation in question was made by Dr. Jewett, was explained in great detail, and his evidence fully supports the finding of the court below (R. I, 624-687). There was no testimony or evidence to the contrary.

The Long Lines constitutes about 7 per cent. of the Bell operating companies on any reasonable basis (Plaintiff's Ex. A-100, R. IV, 2835). *The number of messages handled by Long Lines was only a fraction of 1 per cent. of those*

*handled by all of the Bell operating companies.** Dr. Jewett allocated to Long Lines about 7½ per cent. of the expenses of his Department, and allocated about 93 per cent. to the 22 other Associate Companies including plaintiff and about 4 per cent. to plaintiff alone.

Dr. Jewett's Method of Allocating between 22 Associate Companies, on the one hand, and the Long Lines, on the other, was fair and logical.

Dr. Jewett pro rated the total expenses of his department among the 23 operating companies including the Long Lines on the basis of the respective plant investment of each company, stating that he considered that the fairest way to apportion such expenses (R. I, 633 to 635; Plaintiff's Ex. A-117, Cols. 3 and 4; R. IV, 2848).

He did not stop there, however, but checked the correctness of this allocation by considering separately the proper allocations of the different classes of work done by his department. In so doing, he divided the hundred or more classifications in which the work and the expenses of his department were divided in the regular course of business into 13 groups, based upon the particular object for which the work in each group was prosecuted, then he allocated the expenses of each such group separately, based on the relative benefits received from the work of that particular group by the Long Lines and the other operating companies (Plaintiff's Ex. A-118; R. IV, 2848A to 2848Q; R. I, 635 to 687).

The results obtained by the above method of allocation agreed closely with the results obtained by the over-all

* Compare testimony of Gherardi, R. I, 530, with Long Lines messages shown in Plaintiff's Ex. A-100, R. IV, 2836.

method (compare Cols. 5 in Plaintiff's Exs. A-117 and A-119, R. IV, 2848, 2849).

In support of his over-all method Dr. Jewett testified that the work of his department was not done for particular companies or for particular classes of plant, but was done for all of the operating companies as a whole and that practically all of its developments benefited the whole system (R. III, 2146-2147; I, 624, 632 to 634). Work begun on one line of effort often failed to accomplish the result sought, but did accomplish something of value in another field (R. I, 647-687). Devices used in one kind of plant are "tools of research" for developments affecting other plant.

The work had to do with providing new and improved things and methods employed in connection with the plants of the various operating telephone companies, including Long Lines, and to instruct the companies in the best use thereof, and the fairest way to apportion this expense on the basis of use by or value to the recipient was to pro rate the whole expense upon the basis of the respective plant investment of the several companies (R. I, 624, 632; III, 2146).

Defendants' attack upon the above allocation is developed by selecting certain classes of work in which *they* assert, *based on no competent evidence,* that the Long Lines *alone* profited to a much greater extent than the other 22 companies *combined.*

To meet defendants' argument fully would require a careful examination of each of the more than 100 separate classes of work performed by Dr. Jewett's Department. That would be impossible in a brief of a size and scope which would be of any real assistance to the court.

Moreover, Dr. Jewett has done that, and has sworn to his results. His standing is of the highest (R. I, 614); his testimony was clear and convincing (R. I, 611-690); his knowledge of the subject greater, probably, than that of any other living man, and the court below accepted it (R. III, 2509). It was right in that action.

In the circumstances, we shall not enter into a detailed discussion of the questions raised by defendants, but will restrict ourselves to general matters showing the unreasonableness of defendants' contentions and the relative smallness of the maximum possible error in this allocation.

Negligible Effect of Maximum Possible Error.

The amount which defendants claim was improperly allocated was $20,000,000 over a period of nine years, or an average of approximately $2,200,000 a year (Defendants' Brief as Appellants, p. 162). Approximately 4 per cent. of this was allocated to the intrastate business of the Chicago area of plaintiff. Thus, if defendants were 100 per cent. right in their contention, the effect would be to reduce the costs of the License Contract expenses allocable to plaintiff by $88,000 a year.

The *practical* effect, however, would be negligible, because the greater part of the $20,000,000 in question was spent in the latter part of the period covered by the suit and during those years the court below found that the License Contract costs exceeded the payments therefor by upwards of $200,000 per year, *but disallowed the excess as a credit to plaintiff* (Findings 22, 23 and 25, R. III, 2519 and 2520).

Again, any error in the apportionment here under consideration would necessarily be comparatively small.

Plaintiff and each of the other 21 operating companies (exclusive of Long Lines) owns and operates all the classes of plant which the Long Lines owns or operates, but operates many other kinds in addition which the Long Lines does not own or operate (R. I, 634). This is due to the fact that plaintiff is conducting a business which enables its Chicago subscribers to talk to other subscribers in the City of Chicago, to subscribers in the suburbs, and to subscribers in Rockland, Cairo, and other points in Illinois 150 or 200 miles away. This business is all transacted over the lines of plaintiff and is all intrastate business conducted by it and by it alone. The Long Lines, on the other hand, handles only interstate business and only that where the haul is more than 40 miles (R. I, 672).

A message from Chicago to Springfield, Rockland or Cairo, requires the use of precisely the same kind of instrumentalities as a call from Chicago to Indianapolis, Cleveland or Buffalo, over the Long Lines (R. I, 634).

On the other hand, the Long Lines does not own or operate any plant which is the equivalent of that used by plaintiff in rendering its local service in the City of Chicago or its suburban service (R. I, 634).

While the use of the local plant of the Chicago Company is required in every long distance message coming in to or going from the City of Chicago, this plant is used more than one hundred times for the business of the Illinois Company to once for the business of the Long Lines (compare Plaintiff's Ex. A-100, R. IV, 2836, with testimony of B. Gherardi, R. I, 530).

Considering even the toll plant for the handling of messages between distant points, the plant of this kind owned and operated by the 24 Associate Companies is more than

twice that owned and operated by Long Lines (Plaintiff's Ex. A-100, R. IV, 2837).

Thus, no matter what class or classes of plant received the benefit of any class of work done by Dr. Jewett's Department, the Associate Companies combined received, and must have received, a far greater share thereof than the Long Lines alone.

The foregoing seems a rather complete answer to defendants' contention at page 162 of their brief that the entire amount of $26,312,029, the aggregate of the expenses of many classes of work of the Department of Development & Research, should all be allocated to Long Lines and none to the twenty-two remaining operating companies, when Long Lines constituted 7 per cent. of the total and the other 22 companies constituted 93 per cent.

A very brief reference to some of the matters which defendants have singled out to criticise is as follows:

Teletypewriter.

In 1930 the Western Company paid $30,000,000 for the Teletype Company, which manufactured and sold telegraph typewriting machines, called teletypewriters. Many of such machines are used by their owners, such as Press Associations, Telegraph Companies, etc., upon circuits leased from the operating telephone companies (R. I, 459).

The Department of Development & Research during the nine years covered by the suit spent approximately $800,000 in working on and perfecting the teletypewriter exchange apparatus. (Aggregate of amounts in Ex. A-118, R. IV, 2848 A to Q, estimated as the portion relating to teletypewriter.) 4 per cent. of the $800,000, or approximately $32,000, which comes to only $3,555 a year, was allocated to the Chicago area of plaintiff. No part of the $30,000,000 was allocated thereto. The evidence showed that the tele-

typewriter or switching or interconnecting service is a new thing. It is just being introduced in a large way and should have a substantial *local* intrastate use in the large cities, such as Chicago. In addition, the local plant would be required in connection with all interstate use between points in Illinois and points outside (R. I, 684-5).

The effect of plaintiff's procedure has been to allocate to the City of Chicago over the entire nine years in question approximately one-tenth of one per cent. of the total costs of developing facilities and systems for the teletypewriter exchange. The defendants claim that this allowance is ten times too much.

Communication with Harbor Craft.

The Department of Development & Research has spent a comparatively trifling amount in developing a system of communication from shore to tug-boats and other harbor craft. The amount of this expenditure which was allocated to the City of Chicago was only $1,400 for the whole 9-year period.

Plaintiff could understand a possible objection to the allocation to it of a part of such expenditures by an inland city, but not by the City of Chicago.

Radio.

The Department of Development and Research throughout the period covered by this suit made extensive and costly investigations in the field of radio (R. I, 647-657). This is by far the most important of all the items criticised by defendants.

The amounts which were allocated by Dr. Jewett to plaintiff's intrastate business in the City of Chicago for these expenses of his department aggregated $449,326 in the nine years in question. (Amounts shown in Ex. A-118,

R. IV, 2848 A to Q, for Radio, allocated in same manner as total D. & R. expenses shown in Ex. A-117, R. IV, 2848.)

Defendants assert that no part of this expenditure should be allocated to the Illinois Company and that it all should be transferred to the Long Lines because plaintiff received none of the benefits of this work and Long Lines all of it. (Defendants' Brief as appellants, p. 133.)

Plaintiff has already obtained the following direct and positive benefits from the work above referred to and from the inventions and discoveries which have developed therefrom or have been obtained thereby.

1. Higher quality transmitters and receivers in general use in the *exchange plants* of all the Associate Companies in their local business as well as in their toll business—none owned by the Long Lines (R. I, 678).

2. The present successful type of hand set, in substantial use in the *exchange plants* of all the Associate Companies; none owned by Long Lines (R. I, 679-680).

3. Dial interference eliminator—in general use in dial subscribers' sets in the properties of the *local* companies; none owned by the Long Lines (R. I, 679).

4. Larger use of fine wire cables in the *exchange plant* due to the improved receivers, transmitters and transmission devices. Long Lines has no exchange or local plant (R. I, 681).

5. Improved and much less expensive loading coils in large use in *the exchange* and toll plants of the local companies (R. I, 678).

6. Changes in design making the *local* plant less susceptible to outside interference (R. I, 678).

7. Anti-side tone sets improving the quality of speech received, in use in *exchange plants* of the local companies (R. I, 681).

8. Vacuum tubes used in repeaters, amplifiers and in many other forms in *the exchange* and toll plants of the local companies, as well as in plant of Long Lines (R. I, 663).

9. Carrier Systems. At the end of 1930 there were approximately 596 D type installations in the plants of the *local* companies and four in the plant of the Long Lines R. I, 667). At that same time there were about 300 C type installations in the plants of the *Associate Companies* and about 150 in the plant of the Long Lines. The A and B types have gone out of use (R. I, 667).

10. Carrier on cable. A development akin to carrier systems, which have on open wire already had a great effect and which together with the newer type is expected to have still greater economies in the plants of the *local companies* as well as in that of Long Lines (R. I, 668).

11. Concentric Conductor. Very broad band circuit capable of being broken up into many individual channels. Promises large economies and will probably be applied to *shorter* circuits first (R. I, 660-661).

Dr. Jewett testified that each of the foregoing was an important development (R. I, 647-681).

However, the foregoing is only a part of the benefits which the plaintiff together with the other Associate Companies have obtained from the work of the Department of Development and Research in the field of radio. Dr. Jewett states the three main considerations for such work as fol-

lows: (1) To enable the American Company to maintain itself in such a position as not to be threatened by any strong patent situation which may be developed by a group working in the closely allied radio art (R. I, 652). (2) To explore the radio art which is so closely allied technically and scientifically with the wire telephone and telegraph art in order to apply developments in the radio art to the wire telephone and telegraph art (R. I, 652-653). (3) To enable the American Company and its Associate Companies to perform any services by radio methods which are ultimately found to be best rendered by that means rather than by wire methods (R. I, 648).

He stressed the great importance to the American Company of its early investigations in the field of radio and which enabled it to take a commanding position with respect to patents in that field, and he also stressed the importance of continuing that strategic position in the communication art by continued researches (R. I, 650 to 652).

The court must understand that the hope of enlarging the field of sending wireless communications in the Bell System is a very small part of the object of the radio researches and a part which does not offer attractive financial possibilities. The Long Lines has conducted its transoceanic service at a loss throughout. There is no present prospect of large profits in communicating with airplanes, harbor craft, etc. (R. I, 648), but all of these things extend the usefulness of the service and furnish the means of learning more and more of the mysterious laws which govern the communication of sound without wire and which apply so generally to the art of communicating sound with wires (R. I, 648, 649).

A further matter to be considered in connection with the expenditures for radio development is the fact that by the commanding position which the American Company took in the radio field, it was enabled to exchange licenses with the General Electric, Westinghouse, Radio Corporation of America and others, which were of enormous benefit to the Associate Companies (R. I, 651).

Radio Broadcasting.

While it is quite true that the Long Lines has profited and will profit from the developments of radio broadcasting, the Associate Companies also have profited and will profit greatly therefrom. It was due in part to its investigations in radio broadcasting that the American Company was able to make the exchange with the General Electric, Westinghouse and Radio Corporation above referred to; but, in addition, any "*hook-up*" of a broadcasting system which includes Chicago brings revenue to the Chicago area of plaintiff for the use of its wires. On the other hand, all the local broadcasting done in Chicago, of which there is a great deal, makes use solely of the plant of the Chicago company to connect the broadcasting station with the various studios and hotels and is a local intrastate business.

In the face of the foregoing, defendants assert:

> "The development and research expense included in the classifications—wire transmission systems, general transmission systems, and radio transmission systems—should be considered *exclusively Long Lines expense* in the aggregate amount of $26,312,029" (Defendants' Brief, p. 162).

Plants of Associate Companies Were Not Designed or Engineered With Respect to Long Distance Service But With Respect to Their Own Local Requirements.

Defendants, in attacking the expenses of the Department of Development and Research allocated to the Long Lines, assert that the plant in the City of Chicago was specially engineered and more expensive material used in order to make it usable for long distance as well as local service (Defendants' Brief as Appellants, pp. 163-164). If this were so, it would not seem to be highly relevant. It was of advantage to every local subscriber to be able to use the long distance service from his home or office. However, the record clearly and flatly contradicts defendants' claim. Thus, Mr. Gherardi, a vice-president and Chief Engineer of the American Company in charge of the Department of Operation and Engineering, testified in answer to defendants as follows:

> "I would say, broadly speaking, that if the local plant is built so that it will take care of the local conditions, the requirements of the local plant have been satisfied, from an engineering standpoint" (R. III, 2246).
>
> * * * * * * *
>
> "If at each local plant you succeed in giving satisfactory local service, then as far as the local plant is concerned the conditions are satisfied to enable a nation-wide service to be given so that a person in any part of the country can talk to any other person in the country without limitations of distance or property ownership. No coordination is necessary, except in the sense that coordination may mean having adequate standards of local service. In that latter sense coordination is necessary" (R. III, 2247).

There was no testimony offered by defendants in opposition to the above, but now they suggest, based on incomplete and inconclusive quotations from more or less informal statements made in periodicals, that the facts are to the exact contrary of what Mr. Gherardi testified to.

It is true, as argued by defendants, that the local plant must be used in connection with every long distance message and to that extent the Long Lines service gets the benefit of improvements in the local plant. However, as heretofore shown, the local plant is used a hundred times for intrastate messages to once for messages over the Long Lines.

The court must not be misled by defendants' statements with respect to the circuits necessary to transmit radio programs. Defendants say correctly that these circuits must be three times as good as the ordinary telephone circuits. But these are a few special circuits for a special purpose. There has been no re-engineering of plaintiff's plant to permit of circuits to carry radio programs. The evidence is exactly to the contrary, and such a claim seems to be absurd.

In conclusion of the discussion of the pro-rate between Long Lines and the other 22 operating companies.

The evidence shows that up to the time of the trial, the 22 Associate Companies other than the Long Lines (comprising 93 per cent. of the total operating system), were obtaining many times the advantage that Long Lines alone (comprising 7 per cent. of the system), was obtaining from the expenditures discussed by defendants at pages 126 to 170 of their brief as appellants. Moreover, the record showed that the comparative benefit to the 22 companies would increase in future.

The cost of the work should be pro-rated not on the basis of the relative benefits which have been obtained at the moment, but upon those which may reasonably flow therefrom. The evidence shows that it is often five and sometimes ten years before there has been a full practical use made of the developments of the Department of Development and Research (R. III, 2159-2160).

Defendants must be consistent. They have demanded and have received credits during the period covered by this suit for money spent and inventions made long prior to 1923.

In view of the foregoing, it seems to be demonstrated that defendants' contention that 100 per cent. of the cost of radio and other studies should be allocated to the Long Lines and no part thereof to the other 22 operating companies is wholly unfounded and that plaintiff's allocation was fair.

No Part of the Expenses of the Department of Development and Research Should Be Allocated to the American Company as "Holding Company Investor."

(Answering Defendants' brief as appellant, pp. 167-170.)

The character of the work of this department has been thoroughly discussed in the preceding sections. It has there been shown that the 23 operating companies receive more than 90 per cent. of the benefit of that work. The share which the Western received and which was not passed on to the 23 operating companies was sufficiently allowed for in the pro-rate to non-Bell sales and the allowance for patent royalties above referred to.

This accounted for all that the Associate Companies did not get. Nothing was left.

For general discussion of "Holding Company" relationship and costs, see *infra*, p. 207.

A Capitalization of a Substantial Part of the Expenses of the Department of Development & Research Would Have Been Erroneous and Would Result in a Substantial Increase of the Burden Upon the Associate Companies.

(Answering Defendants' Brief as Appellants, pp. 171-173.)

Defendants contend that where new apparatus is produced as a result of the work of the Department of Development and Research, the cost of that work should be added to the price of the article when sold by the Western Electric Company to the Associate Companies, including plaintiff (p. 171).

As shown *infra* (p. 229) the Interstate Commerce Commission has directed that the License Contract payments be charged annually and that no part thereof should be capitalized (R. VIII, 4473). Such direction, while not binding on this court, should be followed unless shown to be clearly wrong.

There was no proof introduced attacking that direction, and the only proof in the record is that expenditures of the kind in question should be charged in the year when made and not capitalized. However, the effect of defendants' contention would be to increase the allowance that should be made for such expenditures.

Defendants state the contrary at page 172 of their brief, and assumed to prove their statement mathematically at pages 68 and 69 of the Appendix thereto. The figures in the Appendix substantially understate the amount which would be charged annually during the years 1923 to 1931, upon defendants' own theory. It is unnecessary to go into that, however, because the theory is obviously wrong, mathematically.

If the expenditures of the Department of Development & Research are to be capitalized, the expenditures which

must be considered are not limited to those of the period 1923 to 1931, taken by defendants but must go back and include all expenditures which had been incurred prior to 1923 which were incorporated in plaintiff's property and still in service.

Defendants are quite correct in saying that the method adopted by the statutory court allocated 100 per cent. of the expenditure to the expenses of the year in which the money was spent. To do otherwise would require that the expense should be added to the cost of the telephone apparatus purchased by plaintiff and that plaintiff would be entitled to a fair return, plus depreciation, upon the entire cost of the property. Including the allowance for depreciation, these would aggregate not less than 15 per cent. annually, and if they lasted for so short a period as ten years the charge for the development would be 150 per cent. thereof and not 100 per cent.

The Expenses of the Treasurer's Department Were Properly Dealt With by the Court Below.

(Answering Defendants' Brief as Appellants, pages 174-184.)

The expenses of the Treasury Department were divided by Mr. Blair-Smith, the Treasurer, into six separate groups:

Group 1 included the direct expenses connected with selling the American Company's stock and bonds to the public. These securities were sold to obtain money to supply to the Associate Companies for financing their requirements, principally extensions in plant to meet demands for service.

Group 2 consisted of expenses in servicing the securities, that is, making the stock transfers and paying the

dividend checks and interest to the hundreds of thousands of stockholders and bondholders.

Group 3 was a small amount connected with making loans almost entirely to the Associate Companies and the plaintiff.

Group 4 were expenses incurred in connection with the work of financing the General Departments of the American Company which were engaged principally upon work for the Associate Companies.

Group 5 includes the work of the Treasury Department in connection with the Employees' Stock Plan.

Group 6 were expenses of advising the Treasurers' Departments of the Associate Companies with respect to their work so that their expenses might be reduced to a minimum (R, I, 861-864, 866).

The expenses included in Groups 1 and 2 amounted to $11,032,985 over the nine-year period in question or a little more than a million dollars a year, and approximately 6 per cent. of these annual amounts were allocated to plaintiff's Chicago area (R. I, 867; Plaintiff's Ex. A-154, R. IV, 2917).

During the period in question, the American Company, through its Treasurer's Department, financed the Associate Companies (R. I, 857). The License Contracts of the Associate Companies in this country (but not the Bell of Canada contract) require that financial services be rendered to them.

The costs of this financing were, for temporary financing, an aggregate of $16,688,713, and for holding funds available for immediate use by Associate Companies, $25,635,789 (Plaintiff's Ex. A-169, Sheet 2, R. IV, 2952b, Ex. A-170, R. IV, 2953-2961). This latter represented the difference between the actual cost to the American Company of obtaining funds and the low interest rate which it ob-

tained thereon through investment in high-grade, non-fluctuating securities which could be turned into money instantly to supply the needs of the Associate Companies (R. I, 859, 931-935). These were actual expenses of the American Company, and were in addition to the costs of the Treasurer's Department above referred to, such costs being about two-thirds for salaries and wages (R. VIII, 4504a to 4504i).

The court below found the annual costs of holding funds available and the amount thereof which should be allocated to the Chicago area if the amount were one which should be included in the License Contract expenses allocable to plaintiff (R. III, 2511).

However, the court included nothing for either of these items of financing and restricted its allowances to what it found was a fair share of the actual clerk hire and salaries of the Treasurer's Department (R. III, 2511). The court proceeded on the theory that it would allow no expenditure of the American Company as a License Contract expense allocable to plaintiff's Chicago area which did not *pro tanto* reduce the operating expenses of plaintiff.

The action of the court below in allowing the financial expenses of the American Company seems to be extreme in its conservatism.

The two classes of expenses above referred to as objected to by defendants were for selling securities to obtain money to supply to the Associate Companies for financing their requirements and the expenses in servicing the securities of the American Company, that is, making the stock transfers and paying the dividend checks and interest to the 644,000 stockholders of the American Company. (See Note, page 177 of Defendants' brief as Appellants).

With regard to $7,356,221 of this expense (R. I, 881; R. IV, 2917), Mr. Blair-Smith said:

> "The $7,000,000 expense which I spoke of was that character of expense that any large company that had its stock well scattered would be bound to incur."

With respect to that item and the remainder of the $11,032,985 in question, it was shown that by reason of the fact that the American Company held all the stock, or practically all the stock, of plaintiff, and that plaintiff had no transfers of stock to make on its books and paid its dividends by one check, it was saved a substantial annual expense which every company whose securities are held by the public must incur. It was further shown that such expenses are recognized as proper annual operating expenses and are charged as such, and that if they had been *incurred by plaintiff, they would have exceeded the share* of the expense of the American Company for such work which was allocated to plaintiff by the court (R. II, 1064, Plaintiff's Exs. A-154 and 180; R. I, 866, 876, 878; II, 1061, 1066).

Plaintiff submits that in any view of the License Contract this share of the expense of the Treasurer's office should properly be considered as a part of the cost to the American Company of furnishing the License Contract services. However, if the separate legal entities between the plaintiff and the American Company may be ignored, with respect to the License Contract, then there seems to be no possible objection to including the fair share of an expense which was absolutely necessary and which would have been borne by the plaintiff itself if it had not been met by the American Company.

The License Contract Costs as Determined by the Court Below Included no Expenses Which Should Have Been Allocated to the American Company in Its Capacity as Investor in or Proprietor of the Associate Companies.

(Replying to Defendants' Brief as Appellants, pages 184-192.)

Throughout the period in question, the American Company has owned upwards of 97 per cent. of the stock of plaintiff. It has also owned the great majority of the stock of most of the other Associate Companies (Plaintiff's Ex. A-99, R. IV, 2834-A). At no time has the American Company owned a majority of stock of two of the Associate Companies in this country or of the Bell of Canada. It has never *dealt* in the stock of those companies or the securities thereof and has never sold a share thereof. It has furnished them money for expansion and has taken stock in payment (R. I, 857, 986).

The American Company incurred expenses in connection with making payments to the Associate Companies and receiving and banking their dividend checks and kindred matters. This work, however, was restricted to comparatively few very large transactions and resulted in comparatively little expense. It was fully allowed for in the allocations made by plaintiff's witnesses, who deducted for this non-License Contract work an average of about $450,000 per year (Plaintiff's Ex. A-170, R. IV, 2953-2961, and exhibits there cited as supporting, A-170). (R. I, 857-870).

It incurred heavy expenses in temporary financing of the Associate Companies in this country and in holding funds available for their use (Plaintiff's Ex. A-170, lines (e) and (f), R. IV, 2954-2960). The court below disallowed all of these expenses and included no dollar therefor in its findings of costs (R. III, 2509-2512).

In addition to the foregoing activities, the American Company examines into, criticises and advises with respect to every detail of the operation of each of the Associate Companies (O.R. III, 970-978, 1045); but this is in exact conformity with the obligation put upon it by the License Contract, and all of this work has, as its direct object, the improvement of the service or the reduction of the expenses of the Associate Companies.

It is idle to say that a large part of this expense is incurred as proprietor and not in performance of its License Contract. The only work of this kind which the American Company now does for the operating companies which it would not do if it fully performed the License Contract but owned not a share of their securities, is the work having to do with receiving, banking and caring for the dividends which it receives from the Associate Companies and the work connected with making advances to the Associate Companies.

It is no answer to the above that the American Company might have done some of the things which it did do if it had had no License Contract. The work all had to do with reducing the cost of construction, the cost of operation, of maintenance and other expenses, of looking after the health of the 300,000 employees to minimize losses occasioned by sickness, and otherwise to make the operating efficiency of each of the companies as high as possible. This was all a direct service to plaintiff and to its patrons. While the American Company was doubtless anxious to secure as large dividends as possible, it could secure those dividends as a result of the expenditures here in question only by increasing the efficiencies of the Associate Companies, and the subscribers got the benefit.

As "horrible examples" of the manner in which the court below has allocated these expenses, defendants call

attention to five particular items: $8,000 for an audit by outside auditors, $31,889 for the printing and distribution of Annual Reports to stockholders, directors' fees, expenses of President and his office and staff and the Secretaries' expenses (p. 188).

Defendants state that plaintiff's witness, Heiss, allocated only $400 of this audit expense to the "Holding Company" activities of the American Company. Now, what happened was that the $8,000 in question is one item forming part of $777,082 expended by one of the Departments of the American Company during the year in question (1928), and Mr. Heiss allocated that whole amount between License Contract expenditures and other expenditures on the basis of approximately 93½ per cent. for License Contract and 6½ per cent. for other expenses (R. VIII, 4504-f, next to last column; Plaintiff's Ex. A-157, relation between columns 2 and 3 for year 1928, R. IV, 2927; R. I, 890-896). The way in which defendants' statement is made is far from fair.

However, there is nothing to show what the audit is for and it is not at all impossible that the percentages used might apply to that item alone (though, of course, this was never intended). If the auditors had made a general check of the balance sheets of the Associate Companies and of the American Company, apparently 4 per cent. of their work, and not 6½ per cent., was devoted to the American Company.

If this audit were one confined to the American Company itself, the allocation is still in no wise ridiculous, as the American Company through its 12 departments had thousands of transactions in connection with services rendered to the Associate Companies and only a comparatively few transactions, each very large, in connection with the receipt of dividends and other purely financial matters.

Of course, the work of an audit is dependent more upon the number of transactions dealt with than upon the magnitude of the sums.

The printing and distribution of the Annual Reports is another item of the $777,082 to which Mr. Heiss applied the general percentage (R. VIII, 4504-f, next to last column).

The directors' fees were comparatively trivial and the amount thereof allocated to the Chicago area of plaintiff amounted to only a few thousand dollars over the whole nine years in question. However, there was good ground for allocating the directors' fees in the same manner as was allocated the money spent under their direction, and this was what was done (R. VIII, 4504-f, next to last column; R. I, 896).

Defendants claim that of the expenses of the General Administration Department, including the President's salary, $18,493 was all that was allocated to the so-called "Holding Company" activities in 1928 (p. 190). This figure, which is a computation, is an understatement, but is sufficiently close for the argument. Similar amounts were allocated in all other years. This seems ample, when it is recollected that the acts of the President and his staff, where judgment and executive ability are required, were almost exclusively confined to matters which directly or indirectly benefited the Associate Companies and constitute License Contract services. It obviously required little of the time of the President and his staff to look after the receipt and disbursement of funds and the investment in high-grade low interest bearing securities of the comparatively small amounts of cash on hand.

The Secretary's Department is one which is specially singled out for criticism by defendants (p. 190). The amounts

which were allocated to the Chicago area of plaintiff with respect to this department never exceeded $3,550 and were in most years less than that amount. For 1931, $2,642 (Plaintiff's Ex. A-156; R. I, 888-889). While the greater part of the expense of the Secretary's office is incurred for work which directly affects the American Company rather than the Associate Companies, yet as the work and expenditures of the American Company related principally to the furnishing of services to the operating companies, it is fair to pro rate the expense of the Secretary in accordance with the other expenditures of the American Company (R. I, 888-890).

The Allowance Made by the Court Below for the Contingent Liability of the American Company to Pay Judgments or Costs Incurred by Plaintiff for Patent Infringements Was Fully Sustained by the Evidence.

(Replying to Defendants' Brief as Appellants, pp. 194-216.)

The License Contract gave licenses under thousands of patents, and provided protection in their enjoyment and in the use of the 100,000 or more parts and combinations of apparatus purchased by the Associate Companies from the Western Electric (see discussion, p. 213, *infra*).

The American Company made provision to meet this contingent Patent liability. The evidence shows the amounts it set aside (see discussion, p. 216, *infra*).

The court found these amounts as averaged to be fair costs to the American Company of rendering the license contract services (R. III, 2511).

Defendants, however, contend that no allowance should be made for this item (Defts.' Brief, pp. 194-195).

To state the above in more detail:

American Company Obligated to Insure Associate Companies Against Damages for Patent Infringement.

The License Contract of 1919 (Plaintiff's Exhibit 7, O.R. IV, 1196) which was in force during seven of the nine years covered by the case at bar provided as follows:

> "(9) The licensee is entitled to receive from the licensor, in addition to all other services and benefits accruing hereunder to the licensee, the following described services and privileges:
>
> (a) The right to use, subject to the privileges herein set forth, all telephonic devices, apparatus, methods and systems covered by patents now or hereafter owned or controlled by the licensor * * *. All new and improved apparatus and developments in the art of telephony * * *; and, without expense to the licensee, protection and defense against, and to be saved harmless from all actions or suits charging infringement of patents arising out of the use of telephones furnished hereunder to the licensee, as well as ample provision for *protecting* and *defending* against, and *insuring* the licensee against judgments for damages and profits in all actions or suits charging infringement of patents arising out of the use of any apparatus, methods or systems which the licensor may recommend." (Italics ours.) (O.R. IV, p. 1206.)

The License Contract of 1930 contains in Sec. 2 thereof a similar provision (Plaintiff's Exhibit A-206, R. V, 3001).

The above obligation, like the other obligations of the American Company under the License Contract, was compensated for by the Associate Companies in this country[1] through their payments of a percentage of their gross revenues as provided for in the contract and its various amend-

[1] This patent indemnity is not a part of the license contract of the Bell of Canada, for obvious reasons.

ments (4½%, reduced to 4%, further reduced to 2%, further reduced to 1½%) (R. II, 1165; O.R. II, 791, 792).

Obligation of American Company a Serious One.

The period 1919 to 1931 was one of very rapid development in the field of electrical communications, and the activity and rivalry in procuring patents as each new field or branch of the art was opened up was great (R. I, 650, 651). At the end of that period the American Company and its subsidiary, the Western Electric, owned or controlled outright, or owned licenses under, over nine thousand United States patents and had over two thousand patent applications pending (R. II, 1211), and throughout the period, the American and Western Companies have had at all times upwards of a thousand patent applications pending (O.R. III, 983).

The Western Company was manufacturing during the period 1923 to 1931, and selling to the twenty-five Associate Companies, over one hundred thousand different piece parts and over twenty thousand kinds of telephone apparatus (R. I, 375), and this highly diversified product, in conjunction with the rapid growth of the art and patent rivalry gave almost unlimited opportunity for patent controversies.

Despite the great activity of the American and Western Companies in trying to keep the field clear for the Associate Companies by taking out patents themselves and by purchasing patent rights from others (R. I, 650-651; II, 1216-1217), there was continuous controversy with other manufacturing companies and inventors and frequent charges of infringement were made against the Associate Companies.

Speaking about this matter, Mr. Folk, the General Patent Counsel for the company, testified as follows:

> "Almost invariably when we standardize a new type of apparatus some claim of infringement is made by somebody" (R. II, p. 1218).

By "standardize" the witness meant when the sale of the apparatus to and the use thereof by the Associate Companies was approved by the American Company (R. I, 703; III, 2244). Mr. Folk further testified that in addition to the open claims of infringement there was the added risk with respect to each new piece of apparatus developed by the American Company "of some application for patents being pending in the patent office of which we would know nothing until the patent was issued" (R. II, 1218).

During the trial of the case at bar before the court below there were pending two very active patent infringement suits brought by the Kellogg Switchboard & Supply Company, of Chicago, a large manufacturer of telephone equipment and appliances, against the New York Telephone Company and the Michigan Telephone Company, two of the twenty-five licensee companies. These suits were test suits. They alleged infringement of patents owned by the Kellogg Company by apparatus in common use throughout the Bell System; and in case of success, similar suits would have been brought against all of the other Associate Companies, including plaintiff (R. II, 1216-1222). The amounts which the plaintiff in those suits has repeatedly stated it expected to recover from the twenty-five Associate Companies aggregate several hundreds of millions of dollars (R. II, 1088, 1089). While this is of course, not controlling as to the amount actually involved, the magnitude of the claims, taken in connection with the following facts, did indicate that the litigation was a serious one and fraught with danger of a substantial loss to the Bell System. Testimony was being taken on such a scale that it seemed the suits would be monumental ones (R. II,

1219). There had been long and serious attempts to reach a settlement before the suits had been brought and the best offer of settlement made to the American Company by the Kellogg Company was the acceptance of five million dollars in cash plus the equivalent of substantially more than twenty million dollars in addition (R. II, 1219).

The American Company made reasonable provision to meet possible losses resulting from its obligation to insure associate companies.

In view of the seriousness of its said obligation under the License Contract to *protect, defend* and *insure* the licensees the American Company made transfers to a contingent reserve which it carried on its books in order to make proper provision against such liability (R. II, p. 1166).

This provision took the form of appropriations from the company's surplus earnings to a "reserve for contingencies." The appropriations during the period covered by this suit were $3,000,000 from the earnings of 1923, $3,000,000 from those of 1924, $6,000,000 in January 1925, $4,000,000 in January 1926. In January 1928, the balance of $14,395,799 in the reserve for depreciation of the instruments was no longer required, as the instruments had been sold, and this whole amount was transferred to the reserve for contingencies. There were no further transfers during the period covered by this suit (R. II, 1089).

Plaintiff claimed that the provisions made were reasonable, were an exercise of the right of management, and should be regarded as well within any reasonable measure of the obligation of the American Company. Defendants offered no proof showing or tending to show that the amounts were unreasonable, and the court below upheld plaintiff's claim (Op. R. III, 2510-2511).

These amounts, though quite substantial considered alone, are very small relatively. It must be remembered that they related to a huge base, several billions of dollars, and that the share thereof allocated annually by the court to plaintiff's Chicago business was less than *one-tenth of one per cent*: of the value of plaintiff's property devoted thereto.* This *percentage* does not seem in any wise excessive for so serious and unlimited a liability.

Contingent liabilities must be considered in determining costs.

The courts have recognized that contingencies and contingent liabilities are matters that must be considered in determining costs. Thus, in *Mobile Gas Co.* v. *Patterson*, 293 Fed. 208, modified and affirmed 271 U. S. 131, the opinion states as follows:

> "Plaintiff also contends that it is entitled to an allowance for contingencies, and the evidence tends to show that six thousand dollars per annum is a proper allowance for this item. No manufacturing business can be prudently conducted without a provision for contingent expenses which cannot be foreseen and which may cost either more or less than the estimate provided. This item is ordinarily allowed * * *."

While the decision above cited was modified by this court the modification had no relation to the point for which plaintiff cites the case and the allowance of the six thousand dollars for contingencies may be considered as having had the approval of this court.

The plaintiff uses this mass of complex apparatus and enjoys rights under thousands of patents. Someone must pay for plaintiff's protection in this use.

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* (Compare figures in R. III, 2511, 4th and 5th lines with the figures in Finding 4, R. III, 2515.)

In the case at bar the *plaintiff* makes no direct claim for *its* very real and substantial contingent liability for possible infringement of some of the net work of patents surrounding the telephone industry as an item of expense in carrying on its business. Plaintiff ignores the real hazard of the patent situation and does not ask rates which will contribute any provision therefor because it is held harmless against such loss or liability by the American Company under the License Contract and *pays* for that protection by its annual license contract payments.

Plaintiff claimed below that the contingent liability of the American Company under the above provision could not be ignored and that the amounts which the American Company had itself set aside to provide therefor in the regular course of business were no more than reasonable and should be accepted as fair provision therefor and measurement thereof. The court below accepted this contention and included in the costs of the American Company found by it, an allowance for the above contingent liability equal to the said provision of the American Company (O.R. III, 2510-2511).

Defendants attack the above allowance and apparently claim that no consideration whatever should be given to the item in question.

Plaintiff has made the foregoing rather long statement of a fairly simple situation because of the character of defendants' arguments against this item of License Contract expense. They are difficult to follow and seem to be a mass of sophistries.

Considering now defendants' four objections:

I. Section 9a of Plaintiff's Exhibit 7 was a plain and simple guaranty to protect, defend and insure against damages for patent infringement, and defendants' argument thereon is wholly lacking in any logical basis.

(Answering Defendants' Contention "1" at pp. 196 to 200 of Their Brief as Appellants.)

In their argument at this point defendants complain that the court below, "following appellee, treated Section 9a of the 1919 License Contract and Section 2 of the 1930 License Contract as creating identical obligations * * *" (Defts.' brief as appellants, p. 198).

This seems to be the focal point of defendants' criticism of the allowance of the contingent liability item. As far as plaintiff can follow the argument of defendants it is that if the 1930 agreement had been in effect throughout the period, the decision of the court below would have been correct, but that there was no justification for that decision in view of the fact that the 1919 agreement was the one which had been in effect during three-quarters of the period covered by the suit and that under that 1919 License Contract agreement there was no basis for the allowance of anything for contingent liability.

The 1930 agreement provides in Sec. 2 thereof that "The licensee shall be protected and saved harmless by the licensor from all actions * * *" (Plaintiff's Ex. A-206, R. V, 3001).

The 1919 agreement provides in Sec. 9 (a) thereof that the American Company shall make "ample provision for protecting and defending against and insuring the licensee against judgments for damages * * *" (O.R. IV, 1206).

Defendants seize upon the language of the 1919 agreement which requires the American Company to "make

ample provision * * *" and argue that this is a substantially different provision from that in the 1930 agreement.

Defendants' argument is wholly unfounded. The general obligation of protecting, indemnifying and insuring is of course the same under both contracts. In each case if plaintiff or any other one of the licensee companies in this country were mulcted in damages for patent infringement the American Company would have to pay the judgment.

The 1919 contract has the special phrase requiring the American Company to make provision therefor which the 1930 does not contain. Thus, if there is any distinction to be made between the two contracts, the 1919 contract the more clearly requires the building up of a contingent reserve such as the American Company did, in fact, build up.

Defendants, however, appear to argue that under the 1919 contract the American Company should have "paid premiums to an insurance company" to protect the licensee companies against patent infringement or "should have set aside a fraction only of its several billions of assets as a trust fund," and that the American Company having failed to set up a fund "free from the creditors of the American Company and free from the possibility of re-transfer to surplus or to other reserves", the contingent reserve actually set up by it was "of no practical benefit pending the time when judgments are, in fact, entered * * *" (Defs.' brief as appellants, p. 199).

Defendants state further:

> "The value to appellee of the American Company's obligation under Sec. 2 of the 1930 contract is measured by the value of the entire unpledged assets of the American Company available for unsecured creditors, including appellee; * * * the value to appellee of the American Company's obligation under Sec. 9a of the 1919 contract is measured by

the value of the trusteed reserve and no more'' (Brief, 200).

Defendants argue on the above premise that the American Company having failed to create an actual trust fund "free from the creditors of the American Company and free from the possibility of re-transfer to surplus", had conferred nothing of value on the Associate Companies by its agreement and was entitled to no allowance therefor.

Both the premise and the conclusion seem to be simply nonsense and a mere statement thereof the best answer thereto. Of course *all the assets* of the American Company were liable for the faithful carrying out of its agreement, under each of the forms of contract. The failure of the American Company to set up a trust fund, if one were required under the 1919 agreement (which was not the case) would in no wise relieve the American Company of its obligation to indemnify. It could not possibly escape liability by failing to observe one of the terms of its contract.

II. The American Company's appropriations to its reserve for contingencies were intended primarily as a reserve against patent liability, were reasonable in amount and the Court below properly sustained such appropriations as measuring the cost to the American Company of its agreement to indemnify against patent infringement liability.

(Answering Defendants' Brief as Appellants, pp. 201 to 207.)

Defendants state the testimony of Mr. Heiss, plaintiff's principal witness upon this subject, as follows:

"This reserve for contingencies was determined upon by myself and the President and was set up

by the Executive Committee (R. II, 1166). That regularly each year, beginning with 1919, the American Company had made substantial transfers to this contingency reserve. He stated that the controlling factors in the establishment of this large contingency reserve was the apprehension of the directors of the company that there might be large losses incurred in connection with patent suits; that this apprehension was aroused largely because of the great activity in the development of electrical communications following and resulting from the war and the great number of patents which had been taken out in the field of electrical communication (R. II, 1088-1089)." (Defts.' brief as Appellants, p. 203.)

Defendants state that the above testimony of Mr. Heiss is the only evidence in the record to support the District Court's finding (Defs. Brief, p. 203). This is not correct. Many things besides Mr. Heiss's statement prove the ultimate facts. To refer to only a part of that evidence, the License Contract imposed the obligation of meeting all losses from patent infringement (Plaintiff's Ex. 7, sec. 9(a), O.R. IV, 1206). The testimony shows that this was a serious obligation and almost unlimited in amount. The same contract requires that a provision be made to meet such damages and losses, and provision was made through the establishment of a reserve for contingencies.

The American Company was directly engaged in business to a comparatively small extent.* The only reasonable basis for any expectation of sudden demands upon it was the patent liability.

Dr. Jewett's testimony, supplemented by that of Mr. Folk, Patent Attorney of the American Company, goes

* The allocation gives to the Long Lines its share of these amounts (See Plaintiff's Ex. A-201, the first line of the note, R. V, 2980-b).

at length and in detail into the vital importance of the vacuum tube to the telephone business, and the very dangerous and complicated patent situation existing in relation to such tubes in 1919 (R. I, 649-687; II, 1215-1229). These dangers were more than justification for all the reserves set up.

In the circumstances, the testimony that the reserves were set up to meet the patent obligations seems to be almost unanswerable and there was no testimony introduced in answer thereto.

Defendants next attack the seemingly reasonable and almost obvious statement of Mr. Heiss with respect to what he and the President of the American Company agreed upon in 1919 and carried out between that time and 1931, by referring to transactions which had taken place *prior to 1919* and to statements made in 1910 by persons who were no longer active in the company during the period covered by this suit. Moreover, the facts referred to are in no way in conflict with the testimony of Mr. Heiss or the claim of the plaintiff thereon. These objections of defendants are as follows:

(a) That during the period 1900 to 1918 the American Company appropriated $43,268,477 of its surplus earnings to a reserve for contingencies. Defendants further state that during that period there was no obligation on the part of the American Company to defend the Associate Companies against patent infringements (Brief, p. 204).

From the foregoing defendants apparently seek to make the point that it was the policy of the American Company prior to 1919 to maintain a contingent reserve without regard to patent responsibility, and that this policy continued after 1919. Neither of the above conclusions follows necessarily or even reasonably from the premises stated by defendants and the premises are contrary to the proof.

The American Company had a large contingent liability with regard to patent infringements *at all times.* The preamble to the 1919 License Contract agreement sets forth that it is merely putting into definite concrete form the actual agreement which had existed between the American Company and the Associate Companies for many years (Plaintiff's Ex. 7, O.R. IV, 1196).

The American Company would hardly have created so serious a right against itself extending back for 17 years by writing such a preamble into the 1919 agreement if it had not correctly stated the facts.

Thus, the American Company had a direct legal obligation to answer for patent infringements to the Associate Companies prior to 1919.

However, regardless of the question of legal liability to the Associate Companies, the American Company as the owner of the great majority of the stock in twenty of the operating companies in this country was actually the party who would suffer the loss if the companies owned by it were mulcted in damages for patent infringements.

Thus, we see that for two reasons the defendants' premise that there was no patent liability to be considered prior to 1919 is unfounded.

Further, if we accept defendants' premise their argument has even less force. They say that prior to 1919 the American Company had set aside $43,268,477 for contingencies which did not include patent liability, and at which time there was no such liability (Defendants' Brief as Appellants, p. 204). They say that in 1919 the American Company assumed the liability with respect to the patent infringement losses. The uncontradicted evidence further shows that at that time there was a great increase in the hazard of patent infringement suits due to the great activity in the development of electrical communication following

the war and great activity in the patent field in connection therewith (R. I, 650-651).

Thus accepting defendants' contentions we have a complete change in the situation taking place in 1919. But defendants argue in the face of this complete change, and in the face of the direct testimony of Mr. Heiss to the contrary, that the American Company continued to accumulate the reserve *subsequent to 1919* for the *same purposes* for which it had accumulated that reserve *prior thereto.*

The claim principally relied upon by the defendants (that the $43,268,477 which had been accumulated in the reserve prior to 1919 contained no provision for patent liability), seems to support rather than refute Mr. Heiss. For the fact that the American Company had created so large a reserve prior to 1919 for remote contingencies, when it had no patent obligations, strongly supports the claim that when the American Company, in 1919 subjected itself to a very direct hazard in connection with patent infringement losses, it at once proceeded to do exactly what Mr. Heiss said it did do; namely, make provision therefor.

In view of the foregoing, it is hardly necessary to point out the lack of support given to defendants' contention by the much relied on statement quoted from the company's annual report on page 204 of defendants' brief as appellants. That statement was made in 1911 by men who were not officers at the times here in question (1911 Annual Report of American Company, O.R. VIII, 2471). How it can contradict the statement of a transaction ten years later between two other officers, Mr. Heiss and the president, is difficult to see.

Moreover, in reading that statement it must be borne in mind that at that time and to the end of 1912 the financial statements of the American Company showed the surplus,

the reserve for contingencies and the reserve for depreciation on telephone instruments and upon long lines plant all as one item (O.R. VII, 2483, 2485, 2675, R. V, 3292, 3299, 3307, 3318, 3323, 3331, 3339).

Thus, the quotation on page 204 had reference to all of those matters and obviously referred principally to the depreciation and to the surplus from which "fluctuations in gross and net revenue" could be stabilized. A *contingency* reserve would have little application to any of the matters referred to in the quotation, yet, defendants introduce the quotation with the following statement: "In 1910 the American Company stated the purposes of *the appropriations for contingencies** to be:" This, we submit, is more than a little misleading.

Defendants very unfairly criticize Mr. Heiss, at page 206 of their brief, and this court must not gain the impression that Mr. Heiss testified any differently concerning the contingent liability of the American Company to answer for patent infringement losses on other occasions. In none of the exhibits referred to on page 206 is the item here under consideration dealt with at all, and Mr. Heiss was not questioned at all as to why it did not appear.

From an examination of the exhibits the answer appears to be, however, that on those exhibits he was dealing with actual expenditures and not contingent liabilities.

The testimony in the note at the bottom of page 206 has no relation whatever to the question of the contingent patent liability nor does it throw the slightest discredit upon Mr. Heiss's accuracy and reliability as a witness. In the Ohio and Michigan cases referred to, Mr. Heiss undertook to handle himself, alone, the entire question of the License Contract expenses of the American Company, and made certain arbitrary deductions to cover work and ex-

* (Italics ours.)

penditures of the American Company which was not strictly License Contract (R. II, 1145-46).

Upon the trial of this action, and in view of the direct inquiry of this court concerning the costs of the American Company, it was deemed necessary to prove those costs much more thoroughly, and instead of the one witness, Mr. Heiss, covering the whole subject, the head of each of the twelve departments who made the expenditures and who had direct knowledge thereof, was called and testified thereto. Naturally, the aggregate of the deductions of the twelve witnesses differed somewhat from the amount estimated by Mr. Heiss but when doing the job himself, the deductions taken by him were *greater* than the deductions testified to by the various heads of departments. There can be no possible reflection on Mr. Heiss from this fact.

Now, when these deductions were developed by the other witnesses, they were handed to Mr. Heiss, who used them in preparing his final summary sheets, which were largely a matter of clerical combination of figures testified to by others, and he testified correctly that in the Chicago case he "had to make the deductions as they (the attorneys) outlined the specifications" (R. II, 1144-50).

Plaintiff submits that the evidence fully supports the finding of the court below, that the appropriations to the contingency reserve of the American Company, admittedly made, fairly measure the extent of the contingent liability to answer for patent infringement liabilities imposed upon the American Company by the License Contract.

However, the right of the American Company to an allowance with respect to its contingent liability for patent infringement losses is not dependent upon the amount which it set aside in its contingency reserve and it would have the right to have that hazard fairly evaluated if it had not appropriated a dollar to the reserve for contingen-

cies, and plaintiff submits that in view of the very large hazard assumed, and upon all the evidence in the case, the court below could well have found that one-half of one per cent. per annum of the value of the properties protected would be a reasonable charge and compensation for such contingent liability, regardless of the provision which the American Company made with respect thereto. An allowance of one-half of one per cent. would substantially exceed the amount which the court below actually did make.

III. The amounts of the American Company's appropriations to the reserve for contingencies were properly taken by the Court as measuring the cost to the American Company of its agreement to indemnify against patent infringement liability.

(Answering Defendants' Brief, pp. 208-213, incl.)

Defendants, in their discussion of the provision for patent infringement liability in subdivision 3, set up five reasons which they state show that no substantial allowance should be made to the American Company because of its said contingent liability. The first three of these contentions are dealt with in the preceding sections of this brief and the claims thereon are shown to be utterly unfounded. In any event, they have no bearing whatever upon the subject here under discussion. For example, what possible bearing can it have upon the evaluation of the contingent patent infringement liability of the American Company that the sum of $14,395,799, which was concededly transferred to the contingent liability reserve of the American Company, had been obtained through a transaction which "unjustly enriched the American Company" as claimed by defendants? At pages 231 to 232 of their brief as appellants, defendants ask that this full amount be a general offset against

the costs of the license contract. If it is offset there and here, too, there will be a $28,000,000 offset for an alleged $14,000,000 "unjust enrichment." That there was no unjust enrichment at all is clearly shown earlier in this section.

The fact that the American Company sought to obtain a free field for the Associate Companies to use all of the most approved devices in the telephonic art by purchasing patents, purchasing licenses and exchanging licenses (O.R. III, 983), as asserted by appellants, is no proof that there was not a serious contingent liability none the less, and is no answer to the testimony of Mr. Folk, referred to *supra*, pages 213-214.

This Court must not gain the impression from defendants' argument that the American Company minimized its patent liability by spending huge sums to buy patents from others and that the cost of these patents was borne by the Associate Companies including plaintiff. The total amount included in the share of the American Company's License Contract expenses which was charged to plaintiff for patents purchased between 1923 and 1931 was less than $10,000 a year, and less than one-twenty thousandth part of the value of plaintiff's property. (For total costs of purchasing patents see R. I, 911; for percentages of these amounts to be allocated to the Chicago area see Plaintiff's Ex. A-160, R. IV, 2932.)

Defendants reach the pinnacle of absurdity in their argument under (5), page 213. There they argue that the American Company should be allowed nothing for the patent infringement liability, because it had the right to terminate its obligation. This argument is based upon the fact that the American Company, in the 1919 agreement, provided that if it should transfer to another company its telephone instruments, and its patents (worth tens of millions

of dollars) and that if this other company should assume the obligation of the American Company as Licensor, the American Company should be relieved "in respect of all things done or to be done *after such assignment*" (Plaintiff's Ex. 7, Sec. 13, O.R. IV, 1214).

IV. The allowances to the American Company for its contingent liability for patent infringement properly took the form of annual allowances.

(Answering Defendants' Brief as Appellants, pp. 214 to 216.)

The Uniform System of Accounts of the Interstate Commerce Commission directs the plaintiff to treat its payments to the American Company under the License Contract as annual expenses and not capitalize any part thereof (R. VIII, 4473). The General Expense Account 668, referred to by defendants, has nothing to do with the License Contract payment and is another and separate account (R. VIII, 4475). Therefore whatever payment plaintiff makes for protection against patent infringement liability, it makes as part of the license contract payments and therefore makes in annual payments and treats as an annual expense, under the direction of the Interstate Commerce Commission. Moreover, there seems to be no possible basis for any argument that any part of an agreed annual payment for continued protection or insurance against any loss or hazard should be capitalized. The important point is not the accounting practices of the American Company, but the payments for patent protection made by the plaintiff.

What the court below really found was, that of the annual License Contract payments made by the plaintiff to

the American Company each year certain parts thereof were merely fair compensation to the American Company for the hazard of insuring against patent liability.

However, looking at the matter from the standpoint of the American Company, it was reasonable for it to make annual or periodical contributions to its reserve for contingencies and to consider its liability as an annual expense.

In no event are defendants correct in their argument that there would be a saving in this item of 40 per cent. if it were capitalized and not treated as an annual expense. It seems to be defendants' idea that the American Company, instead of including the patent infringement protection in the License Contract agreement, should have provided therefor by including something therefor in the selling price of the apparatus sold by the Western Electric Company to plaintiff and the other Associate Companies. The answer to this is two-fold:

First. It wasn't done that way, and the way it was done was a perfectly proper and reasonable one.

Second. If it had been done that way it would have resulted in increasing, rather than decreasing, the annual expenses of plaintiff. If defendants' suggestion were followed, there would have been added each year to the amounts which the Western Electric Company charged the plaintiff for apparatus sold to it an amount equal to the allowance found proper by the court below for protection against patent liability. This, of course, would have increased by that amount the rate base upon which the plaintiff was entitled to earn a fair return and the base to which the annual expense of depreciation is applied. There might have been a saving of 40 per cent. of this

item if the amounts capitalized had been restricted to the allowances for the years 1923 to 1931, inclusive. But such would not have been the case. Capitalization of the item would have required that additions should have been made by the court to all of the purchases which plaintiff made from the Western Electric Company during the years prior to 1923 as well as those subsequent thereto. If this had been done there would obviously have been an increase rather than a decrease in the expenses of the plaintiff over the period in question *and a continuing increase in the future.*

The practices of the Stromberg-Carlson, Automatic Electric, and other electric companies, and that of the Western Electric Company in selling to its non-Bell customers have no bearing on this subject and this Court must not be induced to believe that the claim which is being made for an allowance for patent infringement liability protection is something in addition to what the Western Company chargos its non-Bell customers. Such is by no means the case. The Court below found that the price at which the Western Company sold its apparatus to the Associate Companies was substantially below the prices charged by the Stromberg and other companies and also substantially below the prices at which the Western Company itself sold to non-Bell customers (Findings 14, 15, and 16, R. III, 2517). One reason for this much lower price was the fact that the American Company stood the hazard of patent infringement suits in connection with the sales to the Associate Companies and that in all the other cases referred to by defendants the vendor took that risk. The spread between the prices at which the Western Company sold to the plaintiff and the other Associate Companies and

the price at which all other sales were made was many times the amount which was claimed and allowed to the American Company by the Court below for the patent infringement hazard (Compare data and charts in Plaintiff's Exhs. 64 to 68, incl., O.R. IV, 1554 to 1559 with the figures shown in the Court's Opinion, R. III, 2511, top of page).

The American Company Received no Considerations From the Plaintiff Which Should Be Allowed as Offsets Against the Costs of Furnishing License Contract Services.

(Replying to Defendants' Brief, pp. 217 to 231.)

Defendants contend that there were four such compensating considerations which they charge that the court overlooked. (Brief, pp. 217 to 218.) Taking these four objections up in their order:

I. Such Small Services as Plaintiff's Employees Performed for the American Company Were Outweighed Many Times by the Benefits Which the American Company Conferred upon the Plaintiff *Dehors* the License Contract.

(Answering Defendants' Brief as Appellants, pp. 217-224.)

During the period covered by this suit the employees of the plaintiff, like the employees of each of the other Associate Companies, did clerical work for the American Company in selling stock to the public and in managing the stock sales plan of the American Company (R. V, 3215 to 3216), under which employees of the Bell System had a right to subscribe to and purchase *limited amounts* of the

stock of the American Company at prices below the market (R. I, 864 to 865).

The work required to handle these sales was clerical and comparatively trivial. The proof showed that from $29,701 to $45,263 per year was the total cost to the Chicago Division of appellant of the work connected with the stock sales to the employees of plaintiff (Defendants' Ex. D-126, R. VI, 3809).

Defendants complain that plaintiff was entitled to compensation for this work and that the amount thereof should be offset against the credits to the American Company for license contract services. Defendants entirely ignore the fact that these stock sales to employees were made without strings attached; the employee became the absolute owner of the stock and was free to dispose of it at will; and that if the stock purchased by plaintiff's employees between 1923 and 1930 had been sold by each purchaser at market prices on the day of purchase, the aggregate profit to said employees of the plaintiff would have been over $5,000,000 (R. I, 864 to 866). This profit, or ability to make profit, was a matter of great advantage to plaintiff's employees and was recognized as such by them. It was in the nature of additional compensation and additional compensation paid by the American Company and not included in any way in plaintiff's operating expenses. This great advantage outweighed more than ten times the small expense of handling the records of the sales and collecting the money.

In addition to handling the records of the sales to its own employees, plaintiff handled the collecting and accounting services in connection with sales of the stock of the American Company to the public in the Chicago area.

Where the plaintiff mailed circulars or annual reports of the American Company or incurred incidental expenses of that kind, the expense actually incurred was billed to the American Company and paid by it (R. II, 1260 to 1261). Plaintiff, however, did furnish services of a general accounting and clerical character in connection with this work. Plaintiff received from the American Company $9000 a year from 1923 to 1928, inclusive, for this service, and $3600 a year beginning 1929 (Defendants' Ex. D-128, R. VI, 3811). Plaintiff developed the cost of this work to it and showed that a maximum amount to allow therefor was from $15,100 to $19,600 per year (R. VI, 3810).

Thus, considering the whole expense to plaintiff for handling the stock sales of the American Company, both to employees and to the public, and the advantage to plaintiff from that arrangement, it is seen that the advantage still outweighed the expense in the ratio of 10 to 1.

II. The Central Union Transaction Is Wholly Irrelevant.

Defendants devote pages 224 to 228 of their brief in an attempt to show that the American Company unloaded on the plaintiff unprofitable properties burdened with debt, and at page 229 argue that the advantage to the American Company from this transaction should be offset against the License Contract services rendered by it to the plaintiff.

The transaction in question was the sale to the plaintiff by the American Company of its interest in the Central Union Telephone Company. This transaction seems to be advantageous to plaintiff or disadvantageous, depending upon the particular argument which the defendants are making at the time.

In this connection we call the Court's attention to page 478 of Defendants' brief, wherein they make an argument based upon the fact alleged by them that soon after the Central Union properties were acquired by the plaintiff they were a fine paying property.

The Central Union transaction, however, is one wholly irrelevant to this case. This case deals with plaintiff's property and rates in the City of Chicago alone, and for the period 1923 to 1931. The Central Union transaction took place in 1920, with respect to properties wholly without the City of Chicago.

III. Under No Possible Circumstances Could There Be Any Credit Due the Plaintiff Against License Contract Services or Payments for the Alleged Surrender of Its Right to Participate in Profits from Long Distance Business.

(Answering Defendants' Brief as Appellants, pp. 229 to 231.)

Under the original License Contract of 1881, plaintiff had the right to certain compensation from the American Company for the use by the latter of plaintiff's exchange plant in its Long Distance service into and out of Chicago (Q.R. VI, 1929 to 1930). In 1919, there was a new contract entered into which changed this provision. Defendants claim that by this change plaintiff surrendered rights which would have brought it in from $350,000 to $650,000 a year (Defendants' brief, page 230), and that credit should be given to appellee for such surrender against its License Contract payments.

The 1881 contract did not by its terms run forever, but was terminable. The American Company had the right to terminate it and did terminate it. Plaintiff had no prescriptive right to the profits in question.

Moreover, the 1919 contract was a much more favorable one to plaintiff than that of 1881. Under the 1881 agreement, plaintiff paid $5 per station as its License Contract payments (O.R. VI, 1929). Under the 1919 agreement, plaintiff paid for 1920 approximately $2.10 per station (Opinion of this court in *Smith* v. *Illinois Bell Tel. Co.*, 282 U. S. 133, at pp. 153 to 154). Moreover, under the 1919 agreement, plaintiff received, according to the explicit claims of defendants, substantial advantages with regard to the use of patents and to insurance against liability for patent infringement which it had never had theretofore (Defendants' Brief as Appellants, pp. 196-197).

In the circumstances, defendants' complaint that plaintiff was deprived of something of advantage by this change in the form of the License Contract is wholly without merit.

Furthermore, the whole matter is irrelevant. The transaction in question took place in 1919. It related wholly to *interstate* long distance business. The suit at bar deals with the *intrastate* business during the years 1923 to 1931.

No Offset or Credit Arose From the Sale of the Telephone Instruments to Plaintiff and the Other Operating Companies.

(Answering Defendants' Brief as Appellants, pp. 231, 232.)

Under the License Contract the American Company was obligated to and did furnish to each of the Licensee Companies in this country, the telephone instruments required by them in their business and was required to and did maintain those instruments in first-class condition (Plaintiff's Ex. 7, O.R. IV, 1198-1199, 1205).

Plaintiff included a fair allowance for the furnishing of such instruments as one item of the total costs of or allowance to the American Company in connection with furnishing its License Contract services.

The respective amounts claimed by plaintiff, allowed by the court below and admitted by defendants for furnishing such instruments (referred to hereafter as instrument rentals) were as follows:

	(a) Claimed by plaintiff	*(b) Found by court*	*(c) Admitted by defendant*
1923	$415,482	$342,000	$187,260
1924	478,354	395,000	223,320
1925	529,282	439,000	261,149
1926	570,327	478,000	236,165
1927	563,855	476,000	237,777*

* Instruments in use by it sold to plaintiff at end of 1927.

(Plaintiff's proposed finding No. 42, R. III, 2411; Op. Court Below, R. III, 2510; Defendants' request 15, R. III, 2433).

Plaintiff developed the amount of the instrument rental by proving three elements: (1) the actual out-of-pocket costs to the American Company of keeping the instruments in repair (R. I. 921-922, Ex. A-162, R. IV, 2939); (2) a reasonable percentage of the value of the instruments set aside annually for depreciation (R. I, 921-922, Ex. A-162, R. IV, 2939); (3) a fair return upon the fair value of the instruments (R. I, 922-923, Ex. A-163, R. IV, 2940).

The court allowed (1) above as claimed (R. III, 2509). It reduced (2) from 7 per cent. upon value to 6 per cent. upon cost (R. III, 2509-2510). It reduced (3) from a fair return upon the fair value of the instruments to a 6 per cent. or interest rate thereon (R. III, 2510).

Defendants in arriving at the amounts admitted by them and shown in column (c) above, concede the actual maintenance of the instruments as claimed by plaintiff and found by the court, concede a proper annual depreciation charge of more than that allowed by the court (7% instead of 6%), and include an item of taxes which the court omitted (Subdivision (e) of Request to Find 15, R. 2434).

Defendants include, in addition, annual allowances which they term "return upon cost of carrying investment in instruments." While these amounts are less than those claimed by plaintiff and found by the court, the difference is not great. The wide difference between the items shown in columns "a" and "b" and those in column "c", *supra,* is due to the fact that defendants, having admitted the above enumerated items of costs of furnishing the instruments, proceed to wipe out the entire allowance for the largest item (depreciation), by claiming credit for an equal amount.

Defendants' claim is based upon the following facts:

At the end of 1927, the telephone instruments were sold by the American Company to the associated companies in this country including the plaintiff (R. I, 939-940). Plaintiff paid $2,520,126 for the instruments in use in the Chicago area (R. I, 939; Defendants' Brief as appellants, 231). The sales price was arrived at by a valuation of the instruments, and amounted to 80 per cent. of the special low price at which the American Company was able to buy in enormous quantities at that time (R. I, 941). The instruments sold were comparatively new* and there is no charge in defendants' brief that the price paid was excessive, but this would be immaterial in any event, as is shown hereafter.

The same terms were made to each of the associate companies and the selling price of all the instruments to all of the associate companies was $38,183,727 (Defendants' Brief as appellants, 231-232). At the time of the sale, the American Company had a book reserve for depreciation with respect to the instruments of $22,795,386 built up over the period 1884 to 1927 (Defendants' Brief as appellants, 231-232). The amount actually received by the American Company for the instruments was $8,399,587 less than the amount standing upon its books as the cost thereof (Defendants' Brief as appellants, 231-232; R. VI, 4024).

Defendants assert *correctly* that the sales price of the instruments exceeded by $14,395,799 the book cost, less the

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* This is evidenced by the following: (1) Rapid growth in this type of plant, amounting to 35% from 1923 to 1927, Plaintiff's Ex. A-162, R. IV, 2938; (2) The 91% condition of station apparatus testified to by plaintiff's witness Hyatt, R. I, 88-89; (3) The fact that these instruments have a life of about 18 years "from the cradle to the grave" testified to by plaintiff's witness Turner, R. II, 1129; (4) Many new transmitters and receivers put in by American Company in last two or three years, R. I, 944.

reserve for depreciation. They assert *incorrectly* that this whole amount was profit to the American Company and should be offset against and should wipe out entirely all allowance for depreciation of the instruments during the years 1923 to 1927, inclusive.

The answer to defendants' contention is three-fold:

(a) There was no profit of $14,395,799.

(b) There is no possible reason for any offset against the costs of furnishing the instruments by reason of the transfer thereof to plaintiff whether profit resulted therefrom or not.

(c) If the American Company's book reserve for depreciation can be offset against the fair rental of the telephone instruments, then it is an offset over the years during which the reserve was accumulated, and should not be concentrated into a portion of that period when the reserve was shrinking. So likewise any offsettable profits should be offset against the charges during the years when the profits accrued.

Considering (a), *supra:*

There was no $14,395,000 profit. The American Company sold the instruments for $8,399,587 less than the amount standing in the instrument account upon its books (Defts.' Ex. X-121, R. VI, 4024, R. I, 941). The $22,795,386 in the depreciation reserve account was built up by annual amounts added to that reserve by the American Company *from its own funds* (R. I, 944-945). No one *paid* the American Company those amounts; they were merely book-keeping entries whereby the American Company charged itself. The fact that the American Company, when it sold the instruments and no longer needed the depreciation re-

serve, transferred that reserve to surplus, did not indicate an actual gain of that amount in any sense (R. I. 944-945).

Considering (b), *supra:*

If for the sake of argument it be conceded that there was a $14,395,000 profit, it was a profit which was irrelevant in determining the costs of the American Company or the *quantum meruit* for furnishing the instruments in the years 1923 to 1927, inclusive.

The above matter, and the whole License Contract situation can be considered on the basis of one or the other of two suppositions: (a) that the American Company and the operating companies are to be considered as separate and distinct entities (as plaintiff claims they should be) and that fair and reasonable transactions between them should be sustained as valid and binding for all purposes; (b) that the American Company and the Associate Companies are so closely related that they must be considered as branches of one great business with respect to dealings between or among themselves.

Considering the matter of the instrument rentals and the sale thereof on the basis of (a) above then the only question concerning the allowances which should be made to the American Company for furnishing the telephone instruments to plaintiff in the years 1923 to 1927, inclusive, is what are fair amounts *based upon the conditions* that existed *in those years.*

If we concede a profit of $14,395,000 made from the sale of the instruments in 1927, that profit would be irrelevant in determining the fair rentals for each of the years prior to 1927.

Considering, for example, the fair allowance for the year 1923, based upon a determination thereof made in that

years, we would have to develop the following factors: cost of maintaining the instruments, depreciation, and fair return, the very factors set forth in (1), (2) and (3) on page 238, *supra,* as those used by plaintiff and the court below to determine this allowance.

There is nothing in the record to indicate that the amounts allowed by the court for these three factors were excessive or more than any fair and impartial person would have fixed *at that time.* The fact that five years later the instruments had been sold at a price sufficient to repay the investment therein, without any depreciation reserve, would not so indicate even if the instruments had been bought in 1923 and sold in 1927, and much less would this be the case where the instrument account goes back to 1884.

The same rule would apply in all years subsequent to 1923.

Assuming that plaintiff and the American Company must be considered as separate entities able to make reasonable contracts with each other, then plaintiff would have no more claim to any share of the American Company's depreciation reserve or profit than a tenant of a dwelling would have to a share of the profit or of the reserve which his landlord had set up for depreciation during his tenancy if such landlord had later sold at a price in excess of cost.

On the other hand, if the American Company and the operating companies are considered as branches of one great business with respect to dealings among themselves, still there is no possible basis for any claim to the depreciation reserve of the American Company as a profit and an offset against the License Contract payments.

In that case there was no actual sale of the instruments at all and the whole matter may be regarded as bookkeeping entries by one branch of the business with corresponding entries by another. The instruments are still owned by the Bell System, which still uses them in rendering its telephone service and the Bell System still owns and needs the reserve which in the end may prove inadequate rather than excessive.

Considering (c) above:

If the objections raised in (a) and (b), *supra,* be waived, and if it be assumed that the transaction of the sale of the instruments indicated an excessive provision for depreciation or an increase in the market price of the instruments which should operate in reduction of the amounts built up for depreciation, still the offset would have to be made against the period in which the increase in price took place or the excessive provision for reserve was made.

Nothing in the evidence shows that any part of either of these amounts should be allocated to the particular five-year period here in question rather than to any other part of the forty-year period during which the account was on the books of the American Company. On the contrary, the evidence shows quite conclusively that there was no excessive provision for reserve made during the period 1923 to 1927 and that no increase in the value of the instruments took place during that time, but that the market price of the instruments in 1927 was lower than in 1923.

Considering, first, the period during which the reserve of $22,795,386 was built up. This represents, of course, the contributions to the reserve less the cost of the instruments retired from service. The proof concerning the building

up of this reserve was that for many years an annual rate of 10 per cent. had been used and that in 1912, $5,600,000 was taken bodily out of the company's general surplus and set up as a reserve against the instruments; that for several years prior to 1923 an 8 per cent. annual rate was used, and that subsequent to 1923 the rate was 7 per cent. (R. I, 943-944, 946-947). Now the evidence shows that the percentage relationship between the reserve and the book cost of the instruments rose under the 10 per cent. rate and then came down a bit with the 8 per cent. rate and fell still lower under the 7 per cent. rate (R. I, 943-944). In this connection, it must be recollected that the amount in the reserve is a *balance* and is what remains after the charges for depreciation have been added to the reserve and the costs of the instruments actually withdrawn from service have been deducted. A slightly excessive annual depreciation rate of 10 per cent. applied for many years to the large quantities of instruments on hand might well have built up a reserve of more than $22,795,386, while the 7 per cent. rate in effect from 1923 to 1927 might well have failed to provide enough allowance for depreciation. So that the evidence shows exactly what would have been expected.

The same kinds of instruments were not in use throughout the period 1884-1927. Several types were used and superseded. There is no indication even that there was one dollar of excessive depreciation with respect to the instruments which were actually sold to the Associate Companies in 1927 (R. I. 697-701, 950).

Considering, now, the period during which there was any increase in value of the instruments: the record shows that a great increase in the price of the instruments took place in or before 1920. In that year the prices were more

than fifty per cent. in excess of what they had been in 1916. In 1923, the first year of the period covered by this suit, they were slightly lower than in 1920, and in 1927, when the instruments were sold, they were lower still (R. VI, 3762a-3762d).

Thus, the American Company made a loss and not a profit on all of its instruments purchased subsequent to the making of the license contract of 1919, if effect be given to the transfer to plaintiff. In these circumstances, there is no basis for offsetting over the years 1923 to 1927 merely because they happen to be the years covered by the suit, a profit which had accrued in 1920 and prior years.

There seems to be no basis whatever for any credit or offset arising out of the sale of the instruments. But any possible credit should be given to 1920 and prior years, when the instrument prices were rising, in which case no part of it would apply to the period here in question. If such credit be spread over the forty years that the instrument account was on the books of the American Company and its predecessor, it would be too small to find.

Now, if the changing prices of the instruments in any year or years should be considered as affecting the annual rate of depreciation (which plaintiff denies), then of course the offsets against depreciation for rising prices claimed by defendants would apply to the years 1916 to 1923, and the 7 per cent. provision from 1923 to 1927 should be increased because the market price was falling during that time.

Plaintiff makes the above argument to show the utter impossibility of working out any credit such as that claimed by defendants on any possible basis. Plaintiff does not in any way concede the necessity for the foregoing discus-

sion and contends that the whole matter is completely answered in its discussion in (b) at page 241, *supra*.

The court below understated the proper allowance to the American Company for furnishing the instruments, by failing to allow the same fair return upon the instruments as it allowed as the fair return upon all the rest of the property required to furnish telephone service to plaintiff's subscribers (see plaintiff's brief as appellant, p. 99).

The court below further understated the proper allowance to the American Company for furnishing the instruments, as shown in said brief, pages 98 and 99.

These matters account for the difference between the figures shown in column "a" and column "b" on page 237, and the allowances for the furnishing of said instruments, instead of being reduced as claimed by defendants, should be increased by the following amounts in the following years:

1923	$73,842	1926	$92,327
1924	83,354	1927	87,855
1925	90,282		

VIII.

Fair Rate of Return.

(Appellants' Brief, "Fair Return," pages 449-544.)

District Court's Findings (p. 250, *infra*).

The Evidence (p. 252, *infra*).

Risks and Hazards (p. 253, *infra*).

Plaintiff as a Constituent Company of the Bell System (p. 256, *infra*).

Refutation of Defendants' Contentions (p. 265, *infra*).

This court in its opinion, after stating that while the statutory court found the return to be inadequate it failed to find "what would be a proper rate of return," said that it is necessary to consider the actual effect of the rates imposed "in the light of the utility's situation, its requirements and opportuntities." After citing and quoting excerpts from the opinions in *United Railways* v. *West* and *Bluefield* v. *Public Service Commission*, the court said in substance that in the present case we are not dealing with an ordinary public utility "but with one that is part of a large system organized for the purpose of maintaining the credit of the constituent companies and securing their efficient and economical management." The court called attention to the fact that for many years the Illinois Company had been able to expand its business, to meet its operating expenses, to pay dividends of 8 per cent. upon its capital stock, and to accumulate a surplus. It referred to the fact that the District Court found that the reduction in revenue which would have resulted from the rates established by the commission if they had been put into effect,

as applied to the entire business of the company for the year 1923, would have amounted to about $1,700,000 and it said: "The question is whether the loss when ascertained with respect to the intrastate business would cause confiscation under the applicable standard as above set forth in the *Bluefield* case, *supra*." The opinion concludes its discussion of the subject with the following statement:

> "In order to determine this question, the court should find the rate of return which was realized from the intrastate business and the rate of return which it is fair to conclude would have been realized from that business under the prescribed rates."

The statutory court in its opinion said upon this subject:

> "With reference to the rate of return, the Supreme Court (p. 161) said:
>
> 'It was found by the court that the reduction in revenue caused by the rates in question, as applied to the entire business for the year 1923, would amount to about $1,700,000, and the question is whether the loss when ascertained with respect to the intrastate business would cause confiscation under the applicable standard as above set forth in the *Bluefield* case, *supra*. In order to determine this question, the court should find the rate of return which was realized from the intrastate business and the rate of return which it is fair to conclude would have been realized from that business under the prescribed rates.'
>
> Accordingly, we have made findings as to the rate of return which was realized from plaintiff's intrastate business under the rates in force for each of the years during the period in question, and also the rate of return which it is fair to conclude would have been realized in each of those years from that business under the rates prescribed by the commission in its order of 1923.

Applying the standard prescribed by the Supreme Court, we have made findings as to the proper rate of return for each year which is necessary to avoid the charge of confiscation. One of the factors to be considered is that of the rates 'generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties.'

We have given weight to the facts of which the court takes judicial notice relative to the general decline in corporate earnings during the years 1931 and 1932. It is for this reason that we have fixed 6½% as the proper rate of return for 1931 and 5½% as the proper rate of return for 1932. A public utility enjoying the advantages of plaintiff is not entitled to the large earnings made by many undertakings during periods of great prosperity. On the other hand, its return in times of business adversity should not be reduced to the extent that the earnings of many private corporations have been impaired. The range of from 7½% to 5½% as found in this case gives weight, in our opinion, to all of the elements which under the ruling of the Supreme Court we are required to consider'' (Opinion of the District Court, R. III, 2513-2514).

The District Court found that the fair rate of return on the fair value of the intrastate portion of the property to which plaintiff was entitled as the constitutional minimum to avoid confiscation was 7½ per cent. for each of the years 1923 to 1927, 7 per cent. for each of the years 1928, 1929 and 1930, 6½ per cent. for 1931, and 5½ per cent. for 1932* (R. III, 2521).

*Plaintiff upon its cross-appeal assigned error to the finding of 6½ per cent. for 1931 and 5½ per cent. for 1932. (See plaintiff's brief as cross-appellant in case No. 548, pages 104-110.)

The court further found the amount of plaintiff's net earnings in each year under the existing rates (Finding 27, R. III, 2520), and computed and stated these earnings in percentages of return upon the fair value of the property as found by the court in Finding 2 (Finding 33, R. III, 2521). It found the amount by which these earnings under the rates charged would have been reduced in each year if the contested rates had been in effect (Finding 28, R. III, 2520-1), and by subtracting this amount from the actual earnings, as found, obtained the amount of the net earnings in each year under the contested rates (Finding 30, R. III, 2521). These amounts were in like manner computed as percentages of return upon the fair value of the property (Finding 34, R. III, 2522).

The following table shows in parallel the rate of return from the intrastate business upon the fair value of the Chicago intrastate property earned by the company under the existing rates, what the rate of return would have been if the rates in suit had been charged, and the fair rate of return to avoid confiscation, all as found by the District Court (R. III, 2521):

District Court's Findings.

Year	*Existing Rates*	*Under Rates in Suit*	*Required Fair Rate of Return*
1923	5.4%	4.1%	7½%
1924	5.5	4.4	7½
1925	5.3	4.2	7½
1926	5.3	4.2	7½
1927	5.0	4.0	7½
1928	5.0	4.0	7
1929	5.8	4.9	7
1930	5.3	4.5	7
1931	5.5	4.7	6½
1932	4.8	4.1	5½

In the table on the adjoining page we assemble for the convenience of the Court all the findings of the District Court above referred to.

Findings of the District Court.

ILLINOIS BELL TELEPHONE COMPANY

Chicago—Intrastate Property and Business

Comparison of Fair Return Upon Fair Value and Return Under Existing Rates and Under Rates in Suit, From Findings of the District Court.

Year	Court's Fair Value Finding 2 (1)	Court's Rate of Fair Return Finding 32 (2)	Amount of Fair Return (1) x (2) (3)	Return Under Existing Rates		Return Under Rates in Suit		Deficiency in Return	
				Amount Finding 27 (4)	Percent. Finding 33 (5)	Amount Finding 30 (6)	Percent. Finding 34 (7)	Under Existing Rates (3) minus (4) (8)	Under Rates in Suit (3) minus (6) (9)
1923	$124,200,000	7.5%	$ 9,315,000	$ 6,646,183	5.4%	$5,104,515	4.1%	$2,668,817	$4,210,485
1924	136,500,000	7.5	10,237,500	7,483,954	5.5	5,932,959	4.4	2,753,546	4,304,541
1925	148,500,000	7.5	11,137,500	7,880,451	5.3	6,297,890	4.2	3,257,049	4,839,610
1926	151,500,000	7.5	11,362,500	8,052,698	5.3	6,402,128	4.2	3,309,802	4,960,372
1927	167,000,000	7.5	12,525,000	8,363,580	5.0	6,686,503	4.0	4,161,420	5,838,497
1928	173,000,000	7.0	12,110,000	8,627,760	5.0	6,914,459	4.0	3,482,240	5,195,541
1929	184,000,000	7.0	12,880,000	10,679,602	5.8	8,939,602	4.9	2,200,398	3,940,398
1930	187,120,000	7.0	13,098,400	10,138,263	5.3	8,492,385	4.5	2,960,137	4,606,015
1931	179,100,000	6.5	11,641,500	9,826,299	5.5	8,392,555	4.7	1,815,201	3,248,945
1932	166,500,000	5.5	9,157,500	8,000,000	4.8	6,750,000	4.1	1,157,500	2,407,500

The Evidence.

The evidence convincingly sustains the District Court's findings of the requisite fair rate of return for the years 1923 to 1930, and equally shows that the findings for 1931 and 1932 are too low and confiscatory in effect.

The only witnesses who testified on the subject of fair rate of return were plaintiff's witnesses Allen G. Hoyt, of New York, and Edward E. Brown, of Chicago (Hoyt, R. I, 151-160; 187-217; II, 1355-66. Brown, R. II, 1153-55). Their qualifications as shown in the record and their testimony warrants us in saying that two better qualified men could scarcely have been found in the country. They were both bankers of very wide experience in the investment field in general and also in the field of public utility financing. Moreover, they were both acquainted with the Bell System, the history of its financing, and its financial structure. They had like knowledge of the facts with respect to the Illinois Bell Telephone Company.

They testified that a fair rate of return to plaintiff over the period of this case was as follows: 1923-1927, inclusive, 8 per cent.; 1928, 1929 and 1930, 7 per cent.; 1931, 7 per cent. until the latter part of the year and thereafter, 8 per cent. (R. I, 159, 160, 213).

There was no serious effort to break down or challenge their testimony in any respect, and none was introduced to contradict it.

The defendants in their brief characterize this testimony as being "the unsupported general statements of appellee's two banker witnesses" (p. 508). But the witnesses were *qualified*. Their qualifications support their statements. Their conclusions are not binding upon the court,

of course, and the weight of their testimony is for the court, which will take into consideration the fact that the defendants called no witness to dispute them. Moreover, they did not merely give their opinions, they supported them with relevant facts drawn from their knowledge and wide experience. Such testimony cannot be dismissed with a gesture, as defendants dismiss it.

Risks and Hazards.

With reference to the risks and hazards attending investments in the telephone business of the Bell System as compared with investments in other enterprises and particularly other utilities, Mr. Hoyt's testimony is impressive and uncontradicted. He testified:

> "In the course of my business, I have become familiar with the way in which the investing public regarded and regards the various classes of securities in which my Company has dealt during my connection with it. I have become familiar with the risks and uncertainties which such investing public considered and considers attend the various enterprises which have issued such securities * * *" (R. I, 154).
>
> "In the course of my business, I have become familiar with the risks and uncertainties which attend an investment in a telephone business in the eyes of those investing therein" (R. I, 156).

Mr. Hoyt's testimony concerning the risks and hazards of the business is summarized as follows:

1. The telephone company is subject to all the familiar hazards of commission regulation (R. I, 156).

2. A telephone company makes an unfavorable comparison with other public utilities, particularly an electric or a gas company utility, in that the principles of mass production are not applicable to a telephone company. As a matter of fact, as the telephone company's business develops, the investment *per station* tends to increase, and the return upon that additional investment is constant.* On the other hand, the electric and to some extent gas companies, as their business develops, are enabled to install larger and more efficient generators, and the tendency is for the cost per unit of output for those companies to decline (R. I, 157).

3. The telephone company is at a disadvantage by reason of the fact that in the event of declining business, the electric and gas companies may reduce their purchases of fuel, and fuel is an important item in production cost, whereas the telephone company, providing only service, is not in a position to show the same flexibility of operation and reduce production cost to the same extent that the other public utilities are (R. I, 157).

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* This inherent tendency toward constantly rising cost of operation per unit of service as the number of subscribers and the size of the exchange grow is well recognized in the business. Speaking of this, the Illinois Bell Telephone Company in its annual report for the year 1920 (defendants' Exhibit X-352, R. VIII, 4512), referring to the rapid expansion of its business, said "* * * but because of the inherent characteristics of the telephone business this expansion has not been and cannot be attended by the economies of mass production customary in most industries." The company further there points out in this connection that the benefits and economies resulting from continuous improvements in methods and equipment in which it is aided by the American Telephone and Telegraph Company and its laboratories, and by the Western Electric Company, are of great value in tending to neutralize and offset the effects of this inherent characteristic of the business. (See also testimony Dr. Jewett, R. I. 624-8).

4. The business has expanded very rapidly; and in that expansion the company has reached a clientele of more moderate means than the average subscriber of a few years ago. That means, of course, that the company is in a more vulnerable position than heretofore. The telephone company compares unfavorably with the electric companies in that respect, because the electric companies supply many houses with their only means of illumination. Likewise in the case of the gas company there is often no other means available to the customer for cooking except by using a certain amount of gas. On the other hand, the telephone subscriber can have his telephone taken out; and telephones are being taken out (R. I, 157-8).

5. In the minds of some investors also there is the fear, as far as a telephone investment is concerned, that the telephone company may be adversely affected by the further development of wireless communication (R. I, 158).

6. The telephone companies and other public utilities have made very large investments during the past four or five years, and during a considerable part of that time construction costs were high. They are showing a declining tendency. As duplication value is to be given great weight in determining a rate base, it may be that the rate base, as far as the property is concerned which was installed during the past four or five years, will be adversely affected. The investor in public utilities speculates on the price of labor, material and other things, just as an investor in any other business (R. I, 158).

7. The telephone business has shown great stability up to a certain point, the reason being that until recently the telephone industry never approached the point of satura-

tion. The gas and electric companies have enjoyed a similar experience. In fact, by reason of discoveries of new uses for electric companies particularly, and to some extent gas companies, they have perhaps enjoyed benefits which the telephone company does not enjoy, as, after all, a telephone plant can only be used for transmitting the spoken word (R. I, 158-9).

"In answering questions as to what risks and uncertainties were in the mind of the investing public, I was considering the risks inherent in the business, irrespective of the present market conditions. The risks that I referred to are recognized, I think, by bankers and others, who invest in securities of this kind" (R. I, 159-60).

This testimony is not contradicted in any respect and it justifies Mr. Hoyt's statement that the Bell System has no advantage over other well and conservatively managed utilities when it goes into the market to compete with them for available new capital.

Plaintiff as a Constituent Company of the Bell System.

Referring to the fact that the Illinois Bell Telephone Company is one of the constituent companies of the Bell Telephone System, this court said in its opinion:

> "It is evident that in the present case we are not dealing with an ordinary public utility company, but with one that is part of a large system organized for the purpose of maintaining the credit of the constituent companies and securing their efficient and economical management" (Opinion, page 161).

We now consider the case in this aspect.

Plaintiff's witnesses took this fact fully into account, and their testimony is convincing that their knowledge and ex-

perience were such as enabled them to appreciate and correctly appraise its significance. We will have occasion to refer to their testimony later herein.

Bond Financing of the Bell System.

The defendants placed in evidence a comprehensive tabulation of the bond financing that was done during the period of this case by the Bell System, railroads, other public utilities and other industries, as bearing upon the question of what constitutes a fair rate of return to the plaintiff in this case (Exhibits X-261, X-262, R. VII, 4235-4341).

But their argument completely misapprehends the legal significance of their own evidence in this respect.

The main reliance of the defendants is upon a comparison between the cost of bond money to the Bell System, the railroads, and other public utilities. In this connection they argue in their brief (appellants' brief, pages 510-511) that such a comparison, to be significant, must be one between groups of bonds in these several industries "grouped according to some investment rating classification", and they adopt Moody's ratings AAA bonds, AA bonds, etc. (appellants' brief, pages 513-16). In this they are entirely correct. Plaintiff's counsel were insistent upon it at the trial, and upon cross-examination the commission's witness, Mr. Hammond, was requested to make up an exhibit of that character. In response to this request Mr. Hammond prepared defendants' Exhibit X-343, taking the data directly from his other exhibits, as appears upon the face of Exhibit X-343 (R. VIII, 4476).

This evidence of the defendants shows the following facts:

On December 31, 1922, the combined Bell System balance sheet (inter-company duplications excluded) shows total capital stock of $837,000,000 and total funded debt of $646,000,000, of which debt approximately $420,000,000 (mostly mortgage bonds) was indebtedness of the Associate Companies, and approximately $226,000,000 was bonds and debentures of the American Company (Defendants' deposition, Ex. 42, R. V, 3298).

On December 31, 1931, the capital stock had increased to $2,172,000,000 and the funded debt (long-term debt) to $1,054,000,000.[1] This debt is divided approximately, Associate Companies $584,000,000, American Company, $470,000,000 (Defendants' Ex. 307, R. VIII, 4427-29).

The above bond issues were put out in the years 1923, 1925, 1926, 1929 and 1930. The cost to the issuing companies varied only slightly in the different years, and the average (weighted) cost was 5.21 per cent. (Defendants' Ex. X-343, R. VIII, 4476).

As compared with this cost of 5.21 per cent. to the Bell System for money obtained upon long-term bonds, the cost to the railroads of the country upon their comparable bonds during the same period was a weighted average of 4.94 per cent. The comparable cost to the public utilities of the country was 5.12 per cent. (Defendants' Ex. X-343, R. VIII, 4476).

Defendants' evidence thus shows that it has cost the Bell System somewhat more to borrow money on long-term bonds than the similar cost to railroads and other public utilities.

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[1] In the exhibit, which is Defendants' Ex. X-307 (R. VIII, 4428), this figure appears as $1,654,824,529. The figure 6, the ninth figure, is a misprint and should be 0.

The question arises, What is the significance of these facts as bearing upon the fair rate of return in the Bell System?

If bonds issued in the ratio of 1 to 5 of the assets, and in the ratio of 1 to 2 of the capital stock (the assets being in the ratio of 5 to 3 of the total stock and bonds) cost the issuing company 5¼ per cent., what rate of return is fair, in the constitutional sense, to those who carry all the risks and hazards upon the entire property investment in the business, save only such risk as the bond holders carry?

While this is not the sole test of what is a fair rate of return, surely it indicates an average minimum of 7½ per cent. That would allow a spread of only 1½ per cent. between the highly secured and the unsecured portions of the investment, if only ¾ of 1 per cent. is allowed for surplus.

The matter may be stated in another way. Assume a capital structure of which 40 per cent. of the total amount of securities outstanding is represented by bonds.[1]

1. This requires $2.10 per $100 of property value for bond interest. (40% of 5.25%.) An 8 per cent. return upon the unsecured remainder of $60 would equal $4.80. $2.10 plus $4.80 equals a return of $6.90 per $100 with nothing for surplus. If only .6 of 1 per cent. be added for surplus the rate of return is 7½ per cent.

2. If instead of 8 per cent. upon the equity 7½ per cent. be taken, the return is 6.60 per cent. with nothing for surplus.

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[1] Mr. Hoyt testified:

"The bonded indebtedness of a large, conservative gas or electric company runs from 30 to 40 per cent of the property value: It is rather questionable whether a public utility could maintain its credit if it permitted its borrowings to exceed materially 30 to 40 per cent of the property value." (R. I, 212.)

3. If only 7 per cent. upon the equity be taken the rate of return is 6.30 per cent. with nothing for surplus.

We submit that if all other relevant considerations are taken into account and given due weight the fair rate of return as an average for the period is not less than 7½ per cent.

Mr. Hoyt's testimony was in substantial agreement with the foregoing evidence of the defendants (R. II, 1364-65).

During the period 1923 to 1931 the Bell System drew into the business from the investment market $1,743,000,000 of which $408,000,000 was bonds (R. V, 3298; VIII, 4427-9). During that period the Bell System securities by and large were well regarded and, to a degree, the system got what is known as cheap money (R. I, 195). Mortgage obligations of a subsidiary of the Bell System, like the Illinois Bell Telephone Company, would compare favorably with mortgage obligations of the gas and electric light utilities; the yield would be very similar to the better obligations of such companies (R. I, 197).

Referring to the Illinois Bell Telephone Company, as of the end of 1931, its outstanding stock and bonds were $200,000,000, of which $50,000,000 was bonds and $150,000,000 stock. The total assets as of the same date were $320,000,000 (R. I, 198).

The $50,000,000 of bonds of plaintiff were a single issue floated in 1923, thirty-three year 5 per cent. first mortgage bonds upon its entire property in the State of Illinois (R. I, 1032). It has no other bonds outstanding. The cost to the company of these bonds over their entire life is 5.53 per cent. per annum (R. VII, 5259a). Obviously they are bonds of a very high grade. The average cost of credit funds to the American Company in that year was 5.69 per cent.;

but the American Company has no mortgage bonds outstanding. In the succeeding years the cost to the American Company of its financing was within one-tenth of one per cent. of the 5.53 per cent. cost to plaintiff of its bond issue, except in 1929 when the American Company's cost fell to 5.39 per cent. and in 1930 when it fell to 5.29 per cent. (R. IV, 2941-4; see also appellant's brief, p. 540).

The conclusions to be drawn from the foregoing figures for the Bell System and for plaintiff are that, first, a fair rate of return whether considered from the standpoint of the American Company or plaintiff is the same rate, and second, over the period is 7.5 per cent.

We think, moreover, that these are the conclusions one would naturally reach *a priori*, and which one would expect the actual transactions in the market to bear out, because it is clear that the Bell System and its constituent companies are counterparts and that by and large each sustains the credit of the other. Whether it is the American Company or a constituent company that enters the market for capital, it is there viewed as one large, well and conservatively managed enterprise, jealous of its good credit, competing against all others for funds (R. I, 155-6; II, 216-7). It can obtain no better terms than other comparable enterprises, whether they are parts of a large system or not. The financial history of the period proves this.

Stock Financing of the Bell System.

We turn now to the stock financing which, as we have seen, was 75 per cent. of the total for the period. It was a huge sum required to finance the expansion of the telephone facilities of the Bell System in order to meet the great

public demand for telephone service which it was the legal obligation of the Bell System to furnish.

Nearly all of this portion of the new capital was obtained by the American Company by offering additional stock (which is all common stock of $100 par value) to its own stockholders (R. V, 3298; VIII, 4428). Such new issues were offered from time to time as the money was needed. The stockholders, or those to whom they sold their "rights" (which comes to the same thing), subscribed for all stock so offered, hence no underwriting was necessary and no underwriter's or other commissions were paid (R. IV, 2941-4). This stock was offered at par, with the exception of one issue of somewhat more than $200,000,000 which was issued upon conversion of bonds at a premium above par of $80 a share.*

We have, therefore, a situation in which a comparison similar to that above with respect to the bond financing is not available. The price of issue, *upon an offer to existing stockholders,* is without significance in this connection. They were merely putting additional capital into the business and increasing the number of units outstanding as tokens of ownership. As this court says in *Miles v. Safe Deposit Co.*, 259 U. S. 247, at page 252:

> "The right to subscribe to the new stock was but a right to participate, in preference to strangers and on equal terms with other existing stockholders, in the privilege of contributing new capital called for by the corporation—an equity that inheres in stock ownership under such circumstances

* In addition, in the period 1921 to 1931 stock of the American Company was issued to system employees under the Employees Stock Plan to the par amount of $185,000,000 at a premium above par of $30,000,000 (Exhibit A-172, R. IV, 2963)

as a quality inseparable from the capital interest represented by the old stock, recognized so universally as to have become axiomatic in American corporation law." (Citing cases.)

"The stockholder's right to take his part of the new shares therefore—assuming their intrinsic value to have exceeded the issuing price—was essentially analogous to a stock dividend. So far as the issuing price was concerned, payment of this was a condition precedent to participation, coupled with an opportunity to increase his capital investment. * * *"

The defendants make a point of the fact that the American Company in 1921 increased its dividend from $8 a share to $9, which it has continued to pay (Appellants' brief, page 534). At that time the Bell System was confronted with the necessity of obtaining new capital to finance a huge expansion, and at the $8 dividend its stock was selling below par (R. VII, 4233). The American Company then had a substantial surplus available, if necessary, for dividends, which had been accumulated over a period of 40 years as a result of the wise and conservative policy of retaining each year a part of its earnings in the business (R. V, 3295, 3299). To raise the dividend at that time was imperative if the new capital required was to be obtained on reasonable terms (O.R. VII, 2616). The stock was then worth upon a book basis (the stockholders' equity) $200 a share (Appellants' brief, page 538).

The plaintiff introduced in evidence an exhibit showing the cost to the American Company in each year of all its funds invested in the business of the Bell System, as represented by its annual disbursements in dividends and interest (Exhibit A-164, R. IV, 2941-44). It also introduced

Exhibit A-172 (R. IV, 2963) which shows the consideration received by the American Company for all of its capital stock issued and outstanding to the end of the year 1931. These exhibits show the following facts:

1. For stock outstanding at the end of 1931 in the par amount of $1,865,000,000 the American Company had received upon issue $2,134,000,000, or the sum of $268,000,000 as capital stock premiums in excess of the par value of the stock.

2. The dividend of $9 a share, stated as a percentage of the par value of the capital stock, plus the capital stock premiums, plus earned surplus, for each year has been the following percentages:

1923	7.17	1926	7.22	1929	6.81
1924	7.23	1927	7.21	1930	6.45
1925	7.38	1928	6.77	1931	6.58

3. The cost to the American Company of all its funds (book figures) used in the business in each year has been the following percentages:

1923	6.87	1926	6.83	1929	6.53
1924	6.85	1927	6.86	1930	6.25
1925	6.93	1928	6.55	1931	6.42

The court will observe that the cost of capital to the American Company here shown is without any allowance whatever for surplus, since the entire surplus is included in the base upon which the percentages are computed. These percentages would have to be increased by a reasonable addition for surplus.

It is not the position of the plaintiff that these percentages, as such, are the measure of a fair rate of return. But

that they are very important evidence upon this issue cannot be doubted. They represent the best judgment of the management as to what was required to maintain the credit of the American Company, and so of the Bell System, in order that the system might attract into the business upon advantageous terms, and in open competition with all others seeking capital, almost two billions of dollars of new capital in this period of 10 years.

The evidence clearly and convincingly sustains the findings of the District Court with respect to the fair rate of return for the years 1923 to 1930, inclusive, and equally sustains plaintiff's appeal from the findings for the years 1931 and 1932.

Refutation of Defendants' Contentions.

We now answer the contentions of defendants.

Their presentation is such that it is not feasible to follow the text of their argument and take up their points consecutively as presented in their brief. We will therefore endeavor to analyze their argument in order to discover and state the fundamental assumptions or propositions upon which it rests, and then to show that they are unsound and untenable, both in fact and in law.

Defendants reject the settled law. In their view the fair value of the property and the fair rate of return have no place in this case. When they do speak of rate of return at all it is a computed rate.

They advance and stand upon three main propositions.

1. The defendants contend that the existing rates are valid and that the Company's "recorded return" under those rates is constitutionally adequate. Starting from that premise they proceed to the conclusion that the contested rates are compensatory and valid.

They say at page 458 of their brief:

> "Appellee's position taken in its pleadings before the Commission and District Court and its course of conduct during the period of the litigation prove conclusively that the recorded return from its Chicago intrastate business under the existing rates was constitutionally adequate during each year thereof."

At page 461 they say:

> "The Bill of Complaint has never been amended. The Appellee has not by any other or additional pleadings in the instant case or otherwise attacked the rates prescribed by the 1920 Order as unreasonable or as constitutionally inadequate."

The pleadings referred to are plaintiff's return to the commission's order of September, 1921, citing the company to show cause why the 1920 rates should not be reduced, and the bill of complaint in this suit (O.R. 1, 2, 10, 11). The return to the citation was in the nature of a plea or motion to quash. The company took the position that since the 1920 rates had been prescribed by the commission they were presumed to be lawful and that hence the company could not be compelled to assume the burden of sustaining them. The company was overruled.

With respect to the bill of complaint, not only is there no allegation or admission that the 1920 rates are compensatory, but the bill plainly shows affirmatively that they

are confiscatory. This appears from the averments of the sixth, seventh and eighth sections of the bill (O.R. 1, 5, 6), where the allegations with respect to the fair value of the intrastate property, the fair rate of return, and the actual and prospective earnings of the company under those rates are set forth. These averments show that the earnings under the 1920 rates are far short of the alleged fair return and plainly confiscatory.

So much for the pleadings.

If, however, for the purposes of the argument, we should grant defendants the presumption that the 1920 rates are valid, either because they represent the unchallenged action of the state, or because plaintiff has by its pleadings admitted or alleged their validity, we have then to consider what the legal consequences of that presumption are in this case.

Manifestly the presumption is that the 1920 rates are *compensatory* in the constitutional sense; that is, that they produce a fair return upon the fair value of the property. It can go no further than that. But that presumption *proves* that the rates in suit are confiscatory, for it is found by the statutory court and conceded by the defendants that these rates would reduce plaintiff's net earnings on its intrastate business in Chicago in every year by amounts ranging from $1,433,000 to $1,740,000 (R. III, 2520-1). If it is the "recorded return" under the 1920 rates that is presumed to be compensatory, then the "recorded return" under the rates in suit will be less by the amounts stated and hence confiscatory.

It is the *telephone rates* that are compensatory or confiscatory. Defendants invoke against the plaintiff a legal presumption or admission to establish a premise, viz.,

that the existing rates are compensatory in the constitutional sense. From that premise it follows inevitably that the contested rates are confiscatory and the decree would necessarily be affirmed.

Of course the court cannot decide the case on that basis.

2. Defendants take the further position that the issue of confiscation is determined by the relation between earnings and the capitalization and capital structure of the utility, instead of by the relation between earnings, fair rate of return and fair value of the property, as held in every decision of this court.[1]

Defendants call this theory "the attraction of capital and maintenance of credit test" (Appellants' brief, page 452. See also 524-6).

The first place at which this idea crops out in their brief is on page 454, where they say:

> "Unsupported general statements or judicial notice covering returns on investments of corporations outside the Bell System *whose entire property values are represented by outstanding securities* should not be accepted in support of a finding of confiscation." (Emphasis ours.)

They are well aware of the fact that the "entire property values" of Bell System Companies are generally, and specifically in the case of the Illinois Bell Telephone Company, greatly in excess of their "outstanding securities" (Defendants' Exhibit X-307, R. VIII, 4430-B; City's Exhibit

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[1] In stating this position of defendants, we are not unmindful of the fact that at page 497 of their brief, defendants also contend that "the rate base value should be measured by the book cost of plant less the amount of the depreciation reserve."

We shall take no space to discuss book or original cost as a rate base in view of the settled law.

80, O.R. VI, following p. 2120; R. VIII, 4792-5).* Hence, they say, a fair return upon such property values is not comparable with that of other companies not so conservatively capitalized. It is a mistake; if this is true, for a Bell System company or any utility to be conservatively capitalized, because by whatever amount their properties, at a fair valuation, are in excess of their outstanding stocks and bonds they are to be denied any return upon it.

They apply this line of reasoning to an assumed case at pages 524-5 of their brief where they discuss the opinion of this court in the *United Railways* case.

The law, of course, is to the contrary. The "investment" of a public utility consists of its property. The amount of the investment is the fair value of the property and the company owning the property is entitled to a return upon that amount at a fair rate of return. While there is no formula for determining what is a fair rate of return, it is no more dependent upon the kind, or the amount, or the relative proportions of different kinds of securities than is the fair value.

There is no basis in law or reason why, for example, two utilities with like properties of the same value, and in all other respects similarly situated, are to be accorded different rates of return as the measure of their constitutional rights, because Company A has capital stock outstanding in an amount at par equal to 75 per cent. of the value of its property and no bonds or other debts, while Company B has outstanding stock at par equal to 50 per cent. and bonds equal to 50 per cent. of the value of the property. They are entitled to the same return. The

* These are book figures. Many of defendants' own exhibits show that the book figures are far less than the actual value of the property. (O.R. VII, 2618, 2633, 2646, 2666; R. V, 3284, 3298, 3311.)

entire investment is at all times at the risk of the business. The risk may be shifted as between different classes of security holders; bondholders carry less risk, which is shifted to stockholders; but the shifting of the risk does not get rid of any part of it.

Defendants advance what they call "the attraction of capital and maintenance of credit test" (page 452). Under the caption "Amount to be Carried to Surplus" (page 524), referring to the opinion of this court in the *United Railways* case, they say:

> "In the *United Railways* Case this Court held that a utility is constitutionally entitled to have earnings sufficient so that, after paying all expenses of operation, interest and reasonable dividends 'there should still remain something to be passed to the surplus account' (280 U. S. 234 at 251-2).
>
> "Whether a given rate of return related to a given rate base value will produce the 'something to be passed to the surplus account,' depends upon the following factors, among others: (1) Amount of outstanding securities; (2) Interest rate on credit obligations; (3) Dividend Rate on stock; (4) Rate base value to which Rate of Return is to be related."

At page 526, they conclude:

> "What rate of return related to a given rate base will produce sufficient net income so that 'there should still remain something to pass to the surplus account,' requires detailed knowledge of the corporate structure of the company to which such rate of return has application."

It is a truism to say that the amount carried to surplus is dependent upon the amount of the earnings and the amount distributed in dividends. It is the difference between the two.

The complete sentence of the *United Railways* case from which the defendants quote the excerpt above is as follows:

> "* * * Sound business management requires that after paying all expenses of operation, setting aside the necessary sums for depreciation, payment of interest and reasonable dividends, there should still remain something to be passed to the surplus account; and a rate of return which does not admit of that being done is not sufficient to assure confidence in the financial soundness of the utility to maintain its credit and enable it to raise money necessary for the proper discharge of its public duties" (*United Railways* v. *West*, 280 U. S. 234, 251-2).

There can be no possible objection, of course, to defining "fair return" in these terms, that is, in terms of reasonable amounts for dividends (whether declared or not is immaterial) and reasonable amounts for surplus, over and above the disbursements referred to. But the *reasonableness* of the dividend (or the amount available for the dividend) cannot be dissociated from the fair value of the property and the fair rate of return.

If Company A has property worth $1,000,000 with $500,000 par of stock outstanding, and no debt, and Company B has property worth $1,000,000 with $1,000,000 par of stock outstanding, and no debt, all other things being equal, a reasonable dividend to A's stockholders will be *at a rate* twice that to B's stockholders, both as a matter of law and of common fairness.

The foregoing example illustrates the fundamental error of the defendants, which runs all through their argument. Applying their test, "the attraction of capital and maintenance of credit test," and stoutly maintaining that the set-

tled law became inapplicable in 1923, they would say that if both Company A and Company B can attract capital with a dividend, say, of $8 a share, then A is entitled to earn for dividend $40,000 or 4 per cent. on the property, and B $80,000 or 8 per cent. But this entirely overlooks *the amount of capital* that is to be attracted. On the basis stated, Company A would be able to attract only $500,000, or half the value of the property. This is a complete *reductio ad absurdum.*

On the other hand if we conclude as to both A and B that 8 per cent. is a reasonable rate of return and apply that rate to the property of $1,000,000 in both cases, the results will be consistent and "a detailed knowledge of the corporate structure of the company" is obviously not required and is immaterial.

3. Defendants contend further that the issue of confiscation during this period in the case of plaintiff (or any other Bell telephone company) is to be determined by a comparison of its net earnings in any year with the average net earnings of all telephone companies of the Bell System in that year. Such average net earnings constitute the measure of a compensatory return.

This test would also make the fair value of the property and the fair rate of return irrelevant to the issue of confiscation. Indeed much the greater part of the record in this case would become meaningless.

At pages 535-6 of their brief defendants say:

> "In the absence of a showing that the average net earnings from the operations of all Associate Companies are inadequate no issue of confiscation can arise as to the net earnings from the operations of any single Associate Company so long as such

Associate Company's showing is as good as or is better than such average" (see also Appellants' brief, page 472).

It is not surprising, therefore, in view of the foregoing statements, to find the defendants taking the position in their brief that the law as declared by this court in the reports from 242 U. S. to 272 U. S. has no application to the period of this case, because "the apparent simplicity of pre-war and immediate post-war corporate finance" (page 508), which justified this court in declaring those principles of law, "disappeared in the decade covered by the present litigation" (Appellants' brief, p. 508).[1]

Whether their position is that the settled law has merely been suspended during the decade covering this suit or is permanently outmoded is not made entirely clear, and perhaps does not matter here.

The comparison put forward by the defendants, of course, cannot be a legal test of confiscation.*

There are 21 operating telephone companies of the Bell System, commonly referred to as the "Bell Associate Companies," which together cover the entire United States. They own and operate the telephone properties of the Bell

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[1]Among the cases they cite in this connection as having become obsolete ten years ago are *Denver* v. *Denver Water Co.*, 246 U. S. 178, 194; *Lincoln Gas & Electric Co.* v. *Lincoln*, 250 U. S. 256, 259; *Galveston Electric Co.* v. *City of Galveston*, 258 U. S. 398; *Southwestern Bell Telephone Company* v. *Public Service Commission of Missouri*, 262 U. S. 276; *Bluefield Water Works and Improvement Co.* v. *Public Service Commission*, 262 U. S. 679; *McCardle* v. *Indianapolis Water Co.*, 272 U. S. 400.

In view of the fact that some of the cases they cite were decided by this court during this decade, that is, since 1923, we should call attention to the fact that counsel for defendants are careful to point out in their brief (see footnote, page 508) that those cases *on their facts* all antedate the year 1923.

* If this were the law, ultimately it would lead inevitably to zero earnings as constituting a fair rate of return.

System in their respective territories. They vary greatly in size and in extent of the territory covered, some being confined to a single state, others extending over many states (R. IV, 2834A; I, 523). Some are located in sparsely settled and relatively undeveloped sections of the country, others in densely populated and relatively rich areas. The record shows for all of the companies the financial results of their operations in each year of this case, as shown by their books, but there is no segregation between the interstate and intrastate property and business (such segregation is made only in rate cases). The property is carried on the books at actual cost and the record shows these amounts, but there are no valuation figures. Whether the rates being charged at any time by any company were compensatory or confiscatory cannot be known. Whether some of the companies were justly seeking increases in rates at the hands of the state commissions does not appear. Whether any of the companies were complaining in the federal or state courts of confiscatory rates from time to time, and if so, whether their claims were well-founded or not, does not appear. Nothing is shown as to the fair value of the property or the fair rate of return with respect to any company.

It may be that we should drop the matter without further discussion. However, we do not think the court should be left under the misapprehension that plaintiff's net earnings under the rates in suit would have been equal to or in excess of the average net earnings of all the Associate Companies (operating telephone companies) of the system. The fact is to the contrary; *plaintiff's net earnings would have been far below such average in every year and by this test plainly confiscatory.*

If any such comparison is to be made it must be a fair and valid comparison.

In the court below, defendants offered in evidence and relied upon a comparison to which they make no reference in their brief. We refer to defendants' Exhibit X-299 (R. VIII, pp. 4399-4400),[1] which covers the years 1920 to 1930, inclusive, and a similar exhibit for the year 1931 on page 4401. These two exhibits are entitled "Percentages of Return of Licensee Companies on Average Fixed Capital and Material and Supplies." The term "average fixed capital" means the cost of the plant as shown by the books (OR. I, 223). The term "materials and supplies" is self-explanatory, and the amount is also the book figure.

This comparison, then, is a comparison between the net earnings of plaintiff and the average net earnings of all the operating telephone companies of the system, as shown by the books, as a percentage of the actual cost of the property devoted to the public service. The net earnings are shown in the exhibit as a percentage of such cost separately for each constituent operating company of the Bell System including plaintiff, for each year from 1920 to 1931, inclusive. (We are not concerned with the years 1920, 1921, 1922.) At the foot of each yearly column the average for all companies is given. The earnings are the actual net earnings, so that it is to be kept in mind that for plaintiff they are the earnings, not under the rates here in suit, but under the higher existing rates.*

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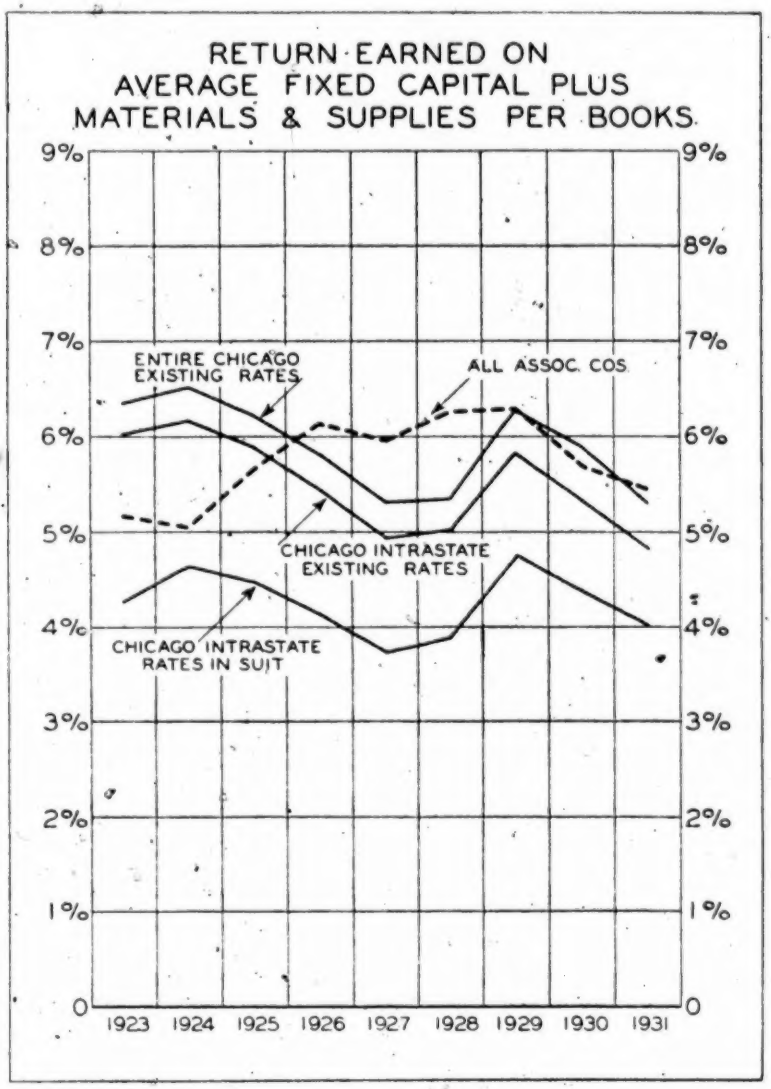
[1] The column headings indicating the years 1920-1930, inclusive, are inadvertently omitted from page 4399, but appear on page 4400.

* The record shows that the business, methods of doing business, property, books, accounting system and methods, and Bell System relationship are similar for all the companies.

Defendants do not show a like comparison with plaintiff's earnings under the rates in suit, but that is readily supplied from the record, and we supply it.

These comparisons are shown graphically upon the following chart.



The dotted line in the chart represents the system average. The lowest unbroken line represents plaintiff's earnings under the rates in suit upon its Chicago intrastate business; that is, the business and telephone rates in issue in this case.[1]

The above chart is an accurate, graphic representation of the data shown in the table printed in the Appendix, *infra*, page a. None of the figures are in dispute in any respect. They are all taken, as the table shows on its face, from defendants' exhibits, with the single exception of the "estimated reduction under rates in suit," which are shown in column 3 at the bottom of the table. While these amounts are taken from Plaintiff's Exhibit A-55, they are the exact amounts found by the district court in Finding 28 (R. III, 2520-1) and are not disputed by defendants.

We call attention to the fact that *in the first three years the combined earnings of all the companies were obviously much too low* (O.R. VII, 2633, 2658-2661). It is clear that the Bell System had not yet made much headway in the necessary post-war readjustment of the telephone rates. Considerable progress in that direction was made in 1925, when the combined average earnings increased approximately ½ of 1 per cent. over the two preceding years, and by 1926 the average exceeded plaintiff's earnings (R. V, 3311). An examination of the defendants' exhibit in detail, where the earnings of each company are shown, will make this clear. Many of the companies were obviously earning far less than a compensatory return in the first

[1] The other two unbroken lines, as related to the dotted line, represent plaintiff's actual earnings under the existing rates. The difference between the two upper unbroken lines is that the one at the top includes plaintiff's Chicago earnings from its interstate business whereas the unbroken line immediately below it includes only the intrastate earnings and is comparable with the bottom line.

three years. (Exhibit X-299, R. VIII, 4399-4401). It is entirely clear, from a glance at the chart, that if it be assumed the system earnings were compensatory from 1926 until the depression in 1930, as the defendants contend, they were plainly much less than compensatory in 1923, 1924 and 1925.

In their brief in this court defendants present other comparisons but not this one which, as we have said, they introduced in evidence and relied upon in the District Court. For the comparisons they do present here see their brief, pages 487-99. In those pages they first make various large adjustments in plaintiff's earnings, to conform to the findings of the District Court, etc., and assume that no offsetting like adjustments or other adjustments would be made with respect to the other companies of the system. Then, having made such adjustments in plaintiff's earnings to raise them very substantially, they use plaintiff's return on "average capital stock," and on "average capital stock and surplus." Comparisons of this kind are obviously meaningless. Defendants first destroy comparability of earnings and, having done that, compare earnings in relation to the capital structure instead of making a comparison in relation to the actual cost of the properties as shown by the books.

The rate of return fixed by the court or by the special master and passed by the court in the more recent cases, all within the period here involved, has been as follows:

8 per cent. in *Southwestern Bell Telephone Co.* v. *Ft. Smith,* 294 Fed., 102—affirmed 270 U. S. 627.

8 per cent. in *Brush Electric Co.* v. *Galveston,* 262 U. S., 443.

8 per cent. in *Brooklyn Union Gas Co.* v. *Prendergast*, 7 F. (2d) 628.

8 per cent. in *New York & Queens Gas Co.* v. *Prendergast*, 1 F. (2d), 351.

7½ per cent. in *Duluth St. Ry. Co.* v. *Commission*, 4 F. (2d) 543.

8 per cent. in *Indiana Bell Telephone Co.* v. *Commission*, 300 Fed., 190.

7½ per cent. in *Pac. Tel. & Tel. Co.* v. *Whitcomb*, 12 F. (2d) 279.

8 per cent. in *Reno Power, etc., Co.* v. *Commission*, 298 Fed., 790.

8 per cent. in *Louisiana Water Co.* v. *Commission*, 294 Fed., 954.

8 per cent. in *Alton Water Co.* v. *Commission*, 279 Fed., 869.

7½ per cent. in *Adirondack Power & Light Co.* v. *Commission*, 211 App. Div. (New York), 272.

7½ per cent. in *Northwestern Bell Telephone Co.* v. *Commission*, 6 F. (2d), 663.

8 per cent. in *New York & Richmond Gas Co.* v. *Prendergast*, 10 F. (2d), 167.

8 per cent. in *Springfield Gas & Electric Co.* v. *Commission*, 10 F. (2d), 252, holding 7 per cent. fixed by the Commission confiscatory.

7.44 per cent. approved and higher indicated in *United Ry. & Electric Co.* v. *West*, 280 U. S. 234.

7 per cent. in *N. Y. Telephone Co.* v. *Prendergast*, 36 F. (2d), 54.

In the present case, the Illinois Commerce Commission fixed 7½ per cent. as the fair rate of return.

Conclusion.

Plaintiff has fully sustained the burden of proof, the decision in its favor is plainly right, and the decree should be affirmed.

Respectfully submitted,

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APPENDIX.

Comparison of Rate of Return Earned on Average Fixed Capital and Materials and Supplies of Illinois Bell Telephone Company with the Average Rate of Return of All Associated Operating Companies Per Books.

	1923	1924	1925	1926	1927	1928	1929	1930	1931
1. Average Rate of Return of all Associated Companies (Exhibit X299, R. VIII, 4399-4401)	5.18%	5.05%	5.67%	6.14%	5.96%	6.27%	6.31%	5.69%	5.44%
2. Plaintiff. (Entire Company) (Exhibit X299, R. VIII, 4399-4401)	6.05	6.12	6.31	6.08	5.83	6.09	6.56	5.93	5.32
3. Difference (lines 1 and 2)	+ .87	+1.07	+ .64	— .06	— .13	— .18	+ .25	+ .24	— .12
4. Plaintiff. Total Chicago (including Interstate) Under Existing Rates (Exhibit X-328, R. VIII, 4455-4456A)	6.36	6.52	6.24	5.82	5.32	5.36	6.29	5.90	5.30
5. Difference (lines 1 and 4)	+1.18	+1.47	+ .57	— .32	— .64	— .91	— .02	+ .21	— .14
6. Plaintiff. Chicago—Intrastate Under Existing Rates (Exhibit X328, R. VIII, 4455-4456A)	6.02	6.18	5.89	5.45	4.93	5.01	5.83	5.35	4.83
7. Difference (lines 1 and 6)	+ .84	+1.13	+ .22	— .69	—1.03	—1.26	— .48	— .34	— .61
8. Plaintiff. Chicago—Intrastate Under Rates in Suit (Exhibit X328, R. VIII, 4455-4456A and A55, R. IV, 2767-2774—see table below)	4.28	4.64	4.49	4.14	3.73	3.88	4.76	4.39	4.01
Difference (lines 1 and 8)	— .90	— .41	—1.18	—2.00	—2.23	—2.39	—1.55	—1.30	—1.43

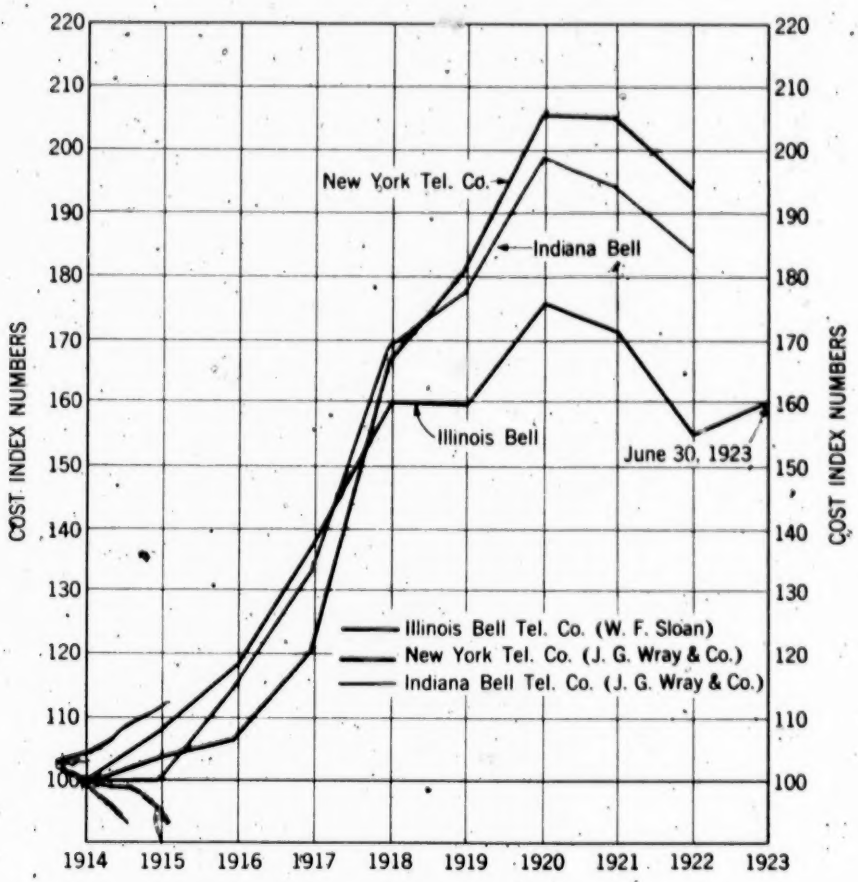
Table Showing Derivation of Percentages on Line 8 Above.

Year	Average Fixed Capital and Materials and Supplies Exhibit X328 (R. VIII, 4455-4456A) (1)	Amount Available for Return Under Existing Rates Exhibit X328 (2)	Estimated Reduction Under Rates in Suit Exhibit A55 (R. IV, 2767-2774) (3)	Balance Available for Return Under Rates in Suit Amount (2) minus (3) (4)	Per Cent. (5)
1923	$ 88,885,934	$5,347,533	$1,541,668	$3,805,865	4.28%
1924	100,824,748	6,230,178	1,550,995	4,679,183	4.64%
1925	112,825,153	6,650,718	1,582,561	5,068,157	4.49%
1926	126,378,794	6,887,012	1,650,570	5,236,442	4.14%
1927	139,511,113	6,877,089	1,677,077	5,200,012	3.73%
1928	151,779,199	7,601,567	1,713,301	5,888,266	3.88%
1929	162,747,599	9,490,091	1,740,582	7,749,509	4.76%
1930	171,149,672	9,152,490	1,645,878	7,506,612	4.39%
1931	175,914,279	8,494,616	1,433,744	7,060,872	4.01%

COMPARISON OF CONSTRUCTION COST LEVELS

1914 = 100

Composite of
- Exchange Pole Lines
- Exchange Aerial Cable
- Exchange Aerial Wire
- Exchange Underground Cable

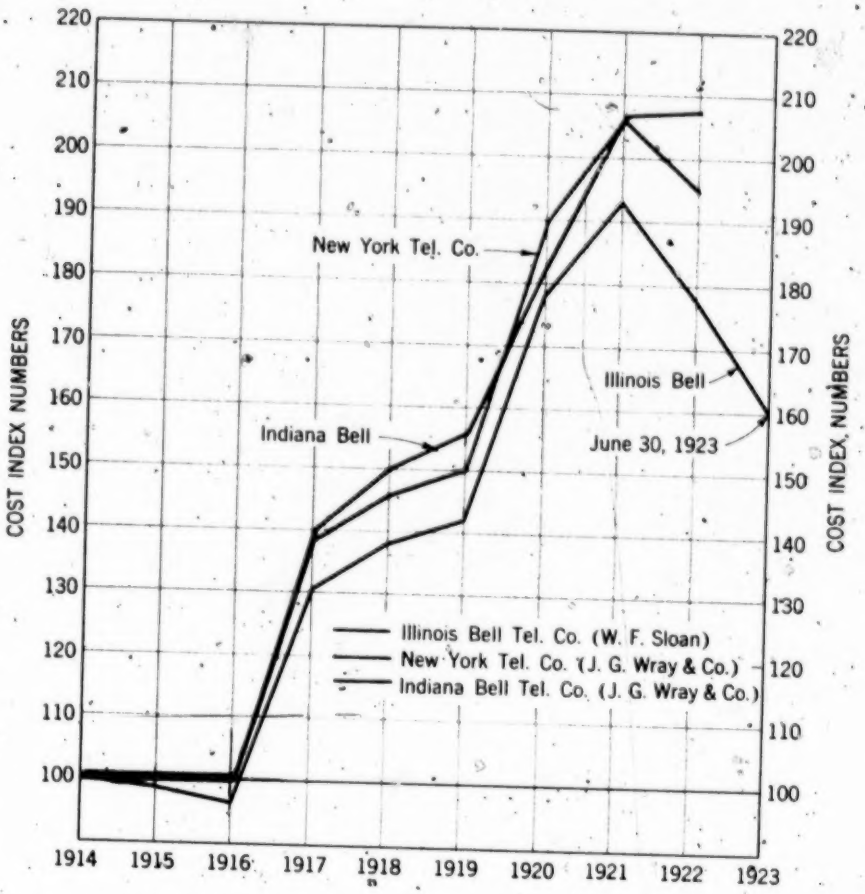


Data for above taken from: Plaintiff's Exhibit 1 - OR IV, 1172-3
Plaintiff's Exhibit 35 - OR IV, 1385
Plaintiff's Exhibit 44-C, following page 1426 (OR IV)
Testimony of J. R. Turner - OR III, 958-9

COMPARISON OF COST LEVELS

CENTRAL OFFICE TELEPHONE EQUIPMENT

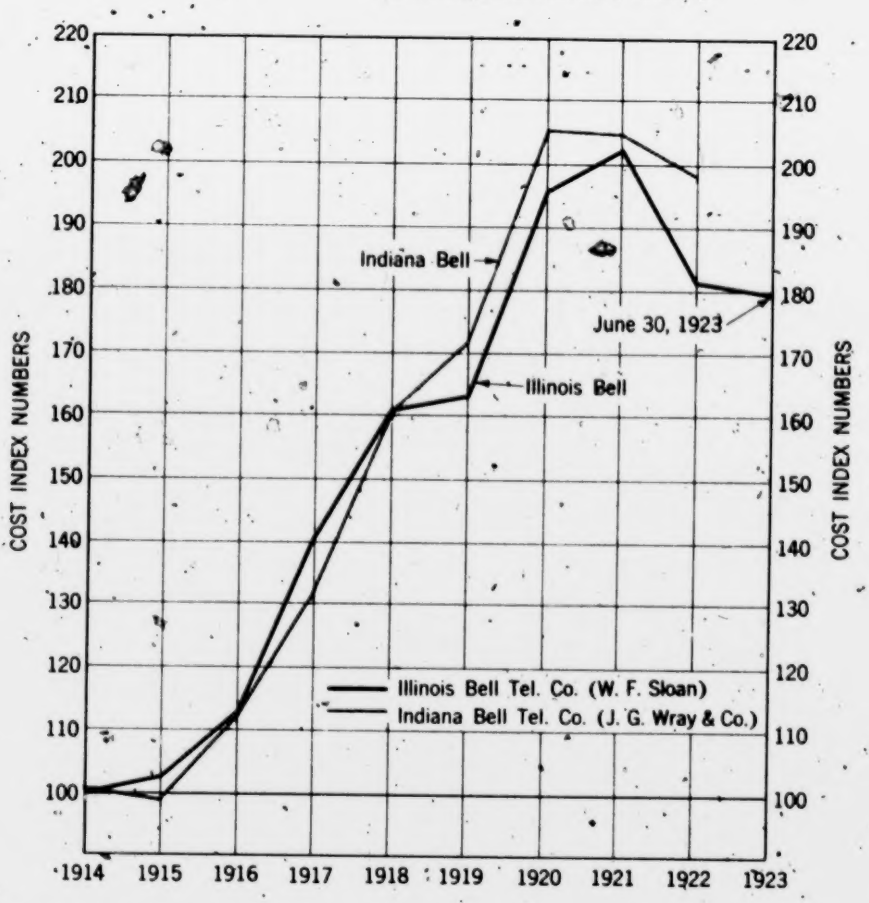
1914 = 100



Data for above taken from: Plaintiff's Exhibit 1 - OR IV, 1169
Plaintiff's Exhibit 32 - OR IV, 1379

COMPARISON OF COST INDEX NUMBERS
FOR TELEPHONE PROPERTY
1914 = 100

Illinois Bell Tel. Co. - Sloan Appraisal
Indiana Bell Tel. Co. - Cost of Complete Telephone Plant in Indiana Based on Analysis of Completed Construction Work (Pl.Exh.36)



Data for above taken from: Plaintiff's Exhibit 44-B, following page 1426 (OR IV)
Testimony of J. R. Turner - OR III, 958

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COMPARISON OF COST INDICES

1923
~~1914~~ = 100

— All Commodities (784) - U. S. Bureau of Labor Statistics
Finished Man'f'd Products - U. S. Bureau of Labor Statistics
— Tel. Apparatus and Eq'p't - W. E. Co. - from City Exh. X-13a, NR VI, 3892
— Average Hourly Earnings in M'f'g Industries - Nat'l Indust. Conf. Board